

Published every Saturday by the  
Simmons-Boardman Publishing  
Corporation, 1309 Noble Street,  
Philadelphia, Pa., with editorial  
and executive offices: 30 Church  
Street, New York, N. Y., and 105  
West Adams Street, Chicago, Ill.

SAMUEL O. DUNN, *Chairman of Board*  
HENRY LEE, *President*  
LUCIUS B. SHERMAN, *Vice-Pres.*  
ROY V. WRIGHT, *Vice-Pres. and Sec.*  
FREDERICK H. THOMPSON, *Vice-Pres.*  
ELMER T. HOWSON, *Vice-Pres.*  
F. C. KOCH, *Vice-Pres.*  
ROBERT E. THAYER, *Vice-Pres.*  
H. A. MORRISON, *Vice-Pres.*  
JOHN T. DEMOTT, *Treas.*

CLEVELAND  
Terminal Tower

WASHINGTON  
1081 National Press Building

SEATTLE  
1038 Henry Building

SAN FRANCISCO  
485 California Street

LOS ANGELES  
530 West 6th Street

**Editorial Staff**

SAMUEL O. DUNN, *Editor*  
ROY V. WRIGHT, *Managing Editor*  
ELMER T. HOWSON, *Western Editor*  
JAMES G. LYNE, *Assistant to Editor*

C. B. PECK  
ALFRED G. OEHLER  
F. W. KRAEGER  
E. L. WOODWARD  
J. H. DUNN  
D. A. STEEL  
R. A. DCSTER  
H. C. WILCOX  
NEAL D. HOWARD  
CHARLES LAYNG  
GEORGE E. BOYD  
WALTER J. TAFT  
M. H. DICK  
W. J. HARGEST  
E. J. PHILLIPS  
JOHN H. KING  
W. H. SCHMIDT  
JOHN S. VREELAND

The Railway Age is a member of  
the Associated Business Papers (A.  
B. P.) and of the Audit Bureau of  
Circulations (A. B. C.).

Subscriptions, including 52 regular  
weekly issues, and special daily edi-  
tions published from time to time  
in New York, or in places other  
than New York, payable in advance  
and postage free. United States,  
U. S. possessions and Canada: 1  
year, \$6.00; 2 years, \$10.00; foreign  
countries, not including daily edi-  
tions: 1 year, \$8.00; 2 years, \$14.00.

Single copies, 25 cents each.

H. E. McCandless, Circulation  
Manager, 30 Church St., New York,  
N. Y.

# Railway Age

With which are incorporated the Railway Review, the Railroad Gazette  
and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 105

October 22, 1938

No. 17

## In This Issue

### Wage-Cut Hearings Concluded . . . . . Page 582

Further details on the oral arguments held in Washington, D. C., in connection  
with the 15 per cent railway wage-cut controversy.

### Seek Relief for Railroads from Grade Separation Costs . . . . . 589

An article on the Constitutional amendment, reducing the carriers' share of  
expense to a maximum of 15 per cent, which is to be put to a vote in New  
York State on November 8.

### The Transportation "Container" . . . . . 596

A discussion, by Walter E. Dunham, General Superintendent of the car depart-  
ment of the Chicago & North Western, of some of the problems presented by  
modern trends in railway passenger and freight cars.

#### EDITORIALS

Labor Union Promises Versus Hard Realities . . . . .	579
Captain Patterson Prescribes for the R.R.s . . . . .	581

#### GENERAL ARTICLES

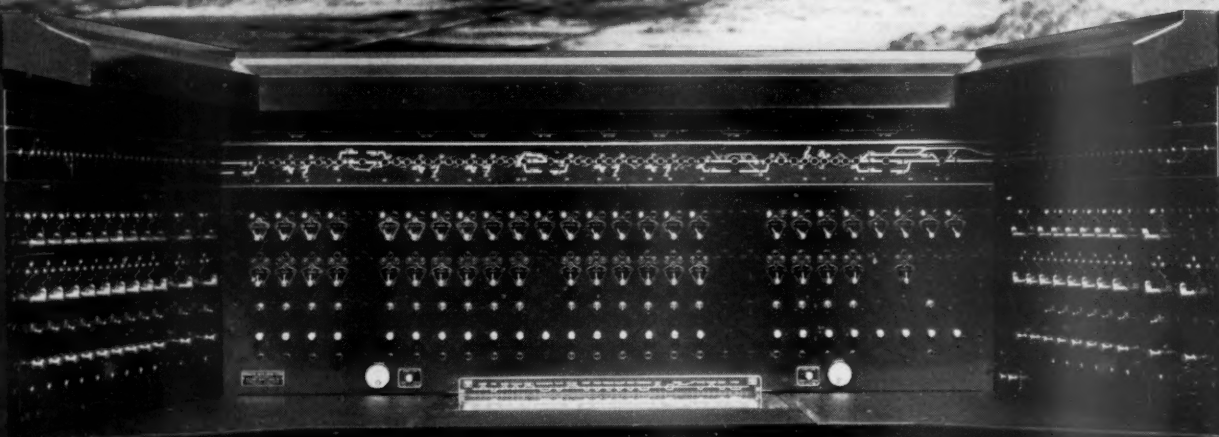
Wage-Cut Hearings Concluded . . . . .	582
Seek Relief for Railroads from Grade Separation Costs . . . . .	589
Safety Jubilee Held in Chicago . . . . .	593
The Transportation "Container", by Walter E. Dunham . . . . .	596
M. P. Develops Vacation Business . . . . .	599

#### NEWS . . . . . 600

#### OPERATING REVENUES AND EXPENSES . . . . . 614

The Railway Age is indexed by the Industrial Arts Index and also by the  
Engineering Index Service

# Your Freights, Too, Can Make Equivalent Time Savings



The movement of a freight train with reference to meets with other trains, can be facilitated in C.T.C. territory because delays inherent to written train orders are eliminated.

Following an installation of "UNION" C.T.C., a substantial saving in the time of getting all trains over a busy subdivision of a western road is being realized. The time saved per freight train varies from 20 to 45 minutes. The gross improvement obtained is comparable with the results attainable by the addition of a second track.

It will be to your benefit to procure detailed information about all the operating and economic advantages of "UNION" C.T.C. Our nearest office will cooperate.



**UNION SWITCH & SIGNAL CO.**  
**SWISSVALE, PA.**



**NEW YORK**

**CHICAGO**

**ST. LOUIS**

**SAN FRANCISCO**

# Labor Union Promises Versus Hard Realities

The decision of the pending wage controversy will be the most important decision ever made by railway management. It will be made by railway management because, under existing law, no other person or agency can make it. The Railway Labor Act empowers the emergency fact-finding board appointed by President Roosevelt only to hold hearings and report, and subsequently the status quo must be maintained by both railway managements and the labor unions for 30 days. Then the railway managements or the labor unions, or both, may either accept or reject the report. Its acceptance or rejection by railway managements, whatever the report may be, will decide whether and how large a reduction of wages shall be made. All the labor leaders can do is acquiesce in the decision of the railway managements or order a strike.

### Views of Mr. Harrison's Senators

George M. Harrison, chairman of the Railway Labor Executives' Association, presented last week to the fact-finding board his plan for railway relief that he contends should be accepted by railway management in lieu of a reduction of wages. His plan would require considerable important legislation by Congress. With remarkable inconsistency he called Senator Wheeler of Montana and Senator Truman of Missouri to testify in favor of it and against a reduction of wages. Senator Wheeler is chairman of the Senate Committee on Interstate Commerce, and long was, and apparently still is, in favor of government ownership. Senator Truman also is a member of this committee. Most of the so-called information regarding the railroad situation they have apparently was secured in a senate investigation of the financing of a small number of railroad systems and of certain other kinds of alleged malpractice by railway managements. Their testimony showed they know so much more about the pathology than about the physiology and hygiene of the railroad industry that they would be much more likely to favor legislation to deal

only with its shortcomings than with the conditions which are at least nine-tenths responsible for its present sickness. Therefore, their testimony was much better calculated to cause skepticism than hope regarding legislation that would be really helpful.

### Labor Leaders, Consolidations and "Making Work"

One part of Mr. Harrison's plan is consolidations. The principal purpose for which consolidations have been advocated heretofore has been to effect economies. As thus far in 1938 wages have consumed 52 per cent of railway gross earnings, it is plainer now than ever that any large economies effected by consolidations or otherwise would have to be gained by reduction of labor costs. The labor leaders always have insisted that economies effected by consolidations or co-ordinations should be secured without reducing employment. They made ineffective the legislation for co-ordination passed in 1933 by getting inserted provisions requiring payment of employees whom it might cause to be laid off. They undoubtedly would insist upon similar provisions in any new legislation for consolidations. Therefore, this part of Mr. Harrison's plan must be regarded as insincere and valueless.

Brother Whitney, president of the Brotherhood of Railway Trainmen, was not included among the labor leaders for whom Brother Harrison spoke. Brother Whitney's union has been the most aggressive in promoting legislation to compel the railways to employ men they do not need. It vigorously promoted and the Railway Labor Executives' Association endorsed the train-limit bill considered by Congress at its last session; and Brother Harrison did not include in his plan any proposal for the labor unions to discontinue promoting "make-work" legislation. Any proposal for effecting economies by consolidations emanating from railway labor leaders until they have publicly renounced make-work legislation must be regarded by those familiar with their past policies and strategy as merely



an effort to divert attention from what actually needs to be done, and done now, by and for the railways.

### A "Real" Attack on Unfair Competition?

Mr. Harrison proposed in his plan a "real" attack upon unfair competition with the railways. What does he mean by "real"? Spokesmen for the railways have been for years demanding equality of treatment by government for the railways and other carriers. Throughout this time the labor leaders have had a great influence with Congress and state legislatures that they probably could have used effectively for elimination of government discriminations against the railways. They should have done this merely to have protected the jobs of members of the unions, although the railways would have benefited incidentally. But, as the *Railway Age* repeatedly has shown by the record, they have given their support, not to politicians who have advocated legislation to establish equality of opportunity in transportation, but to those who have advocated make-work legislation. If Mr. Harrison's statement means the labor leaders for whom he spoke are going to begin at last really to use their political influence against government discrimination against railways and railway employees they will be heartily welcomed as allies by those who have been struggling against it so long; but their offer to help comes too late to serve as a substitute for a reduction of wages.

Financial reorganization of the railways is, of course, included in Mr. Harrison's plan, and he broadly implied that efforts to rehabilitate the railroad industry would be backed by President Roosevelt if railway managements would abandon their movement for reduction of wages. Talking as if he were virtually speaking for the President, he indicated that, on his (Mr. Harrison's) terms, the railways could count on large government loans at low cost.

### Mr. Pelley States the Facts

President Pelley of the Association of American Railroads made to the fact-finding board the only answer to Mr. Harrison's plan that could be made from the standpoint of the railroad industry by any person familiar with its present conditions and problems. He said in part:

"I would like to say that I heard Mr. Harrison's plan for the railroads and . . . by and large I thought it was very good; in fact, he advocated many of the things that I have advocated for many years and many other railroad men have.

"At this coming session of Congress, there is probably going to be a lot of talk about the railroads. . . . There is another group that is making a plan, and there will probably be several plans. We have a plan that the Association of American Railroads has worked out. But what I want to say to the board is that there is no plan, there is none that can be made, there is none that can be put into effect, that will meet this emergency that we are in now. *There is nothing that can be done for this railroad industry that would obviate the necessity of prosecuting this wage reduction to the last.* (Italics are ours.)

"There was some talk here about how sympathetic the officers

of the government are with us. That is right. We have the most sympathetic consideration here on the part of everyone, from the President down. I think they would all like to do something to help us out of our troubles, and we appreciate that, and we want to do everything that we can to promote that, and we are going to. I know from my own personal knowledge that that is true, and I think that there is a better feeling toward us now, that is, a more kindly feeling, a greater desire by all the departments of the government to help us, than ever before.

"But I want to reiterate that . . . we weighed it all. We went through this thing from one end to the other before this wage movement was started, and *I know from my own knowledge that this is the only way out for us.*" (Italics are ours.)

### Mr. Enochs on Brotherly Love and Co-operation

The emergency with which the railways are confronted is an immediate one. The numerous railroads already bankrupt or on the verge of bankruptcy cannot await the slow process of drafting, passing, putting into effect and getting the benefits of such legislation and other action as Mr. Harrison's plan contemplates. And under present and prospective business conditions the benefits to the railroads would not be sufficient, anyway, without a reduction in wages.

There is another good reason for going ahead with the wage movement now. Some statements made in his testimony by H. A. Enochs, chairman of the Carriers' Joint Conference Committee, indicate it. We quote the following from the report of Mr. Enochs' testimony published in the *Railway Age* of October 15, page 554:

"He thought the first 'big, constructive' piece of co-operation was that which brought the 1926 amendments to the Railway Labor Act. 'So,' he went on, 'in the course of the years people became imbued with certain idealistic states of mind as to what can and cannot be accomplished, and they put a value on people's progression of mind. . . . There were certain railroad presidents who believed that the leaders of these (labor) organizations had reached such a state of understanding and of sympathetic interest with the carriers, that they would listen to what the presidents had to say about taking some steps toward ameliorating this general situation. So they came to Washington (last spring) and that is where they met Mr. Harrison. Of course, it was kicked out of the window, because I suppose maybe the people were mistaken—I don't know, but they didn't flux or didn't mix.' . . . And all the while railway conditions continued to become worse with the result that at a second Chicago meeting (of railway presidents) 'the fellows who were advocates of co-operation and "let us lie down in the bed together as brothers"—they just held their peace. That's when the 15 per cent reduction was inaugurated.'"

### On Trading Wages for Fine Promises

What occurred was that the railways agreed to advance wages in 1937 because some railway executives understood that subsequently there would be a lot of co-operation between railway managements and labor leaders for a solution of the problems of the industry. But, as the *Railway Age* has asserted before, as soon as wages were advanced the labor leaders lost all interest in the part they were to play in this brotherly co-operation. Contrary to the understanding, they promoted train limit legislation with their usual energy, although traffic and earnings were so rapidly declining



as to threaten the entire railroad industry with bankruptcy.

Mr. Harrison showed his co-operative spirit, in commenting upon the request of railway management for an agreement to reduce wages, by publicly declaring last spring, "We wouldn't give them the whiskers from our last shave." There probably would have been co-operation if, instead of agreements to advance wages last year, there had been an agreement to advance them if and when improvement in business and co-operation between management and labor leaders had made reasonably certain the ability of the railways to stand higher wages. Unfortunately, railway management traded advances in wages for vague promises—and got nothing excepting a renewal of attacks upon it. It is now offered equally vague promises in return for maintenance of wages.

All experience indicates it is much more likely to get co-operation if it reduces wages now, and afterward seeks labor union co-operation in adopting and promoting measures tending to make it possible to restore them. The railway labor leaders are hard traders, and never have been known yet to give anything in return for something that they have got already.

Whatever the report of the fact-finding board may be, railway management, after it has been rendered, will have a vitally important and very difficult decision to make. The labor leaders have said they will order a strike rather than accept a reduction of wages. They may carry out the threat even if the fact-finding board finds for a reduction. The shop crafts declared a nation-wide strike in 1922 against a reduction although it had been awarded by the Railroad Labor Board. But railway management must squarely face the question, "What will happen to the railroad industry, strike or no strike, if wages are not reduced"? Mr. Pelley answered this question in the only way that any one knowing and facing the facts could answer it when he said, "There is nothing that can be done for this railroad industry that would obviate the necessity of prosecuting this wage reduction to the last. . . . I know from my own knowledge that this is the only way out for us." When railway management makes in the present wage controversy the final decision that it alone can make it will very likely decide the fate of private ownership of railways in this country.

## Captain Patterson Prescribes for the R.R.s

Captain Joseph Medill Patterson, editor and publisher of America's largest newspaper—the Daily News of New York—has written two editorials recently suggesting government ownership as a solution to the difficulties of the railroads. He recites some of the perplexities of the present situation (particularly the railways' lack of adequate earnings) and then "wonders"

whether any solution short of government ownership is possible.

There is this much at least which can be said in answer to this proposal—namely that the mere fact of government ownership would not solve a single one of these difficulties. The problem of how to continue operating non-paying railway lines, the necessity for meeting competition of other forms of transportation, the satisfying of the claims of labor and the shipping public, would not disappear merely by a change from private to public ownership. Public ownership, to be sure, might "bail out" the security owners—but if such "bailing out" is necessary, it still remains to be demonstrated that it could be done more effectively and at less cost to the taxpayers under public than under private ownership.

Because, while solving no old problems, public ownership would certainly bring a host of new problems of its own. If a privately-owned railroad now finds it difficult (as it does) to junk an unproductive line, which people have ceased to use regularly, but wish to have as a "stand by" facility—certainly public disapproval of dismantling such a line would be even more of an obstacle under public ownership than it is now. The railway unions are seeking the aid of political coercion to force the privately-owned railways to sustain a wage level plainly unwarranted by railway earnings. Since they go as far as that with privately-operated railways, certainly with the 3,000,000 or 4,000,000 votes they have, they would quite likely go much further in their demands with the railways subject, in a measure at least, to political control.

Indeed, a man of long experience in government in Washington (whose name would command Captain Patterson's respect if we were at liberty to mention it) expressed the opinion to this writer that "our form of government must be changed if the calamity of government ownership of railways comes. This country just cannot continue to function as a democracy if we add a million voters and their families to the public pay-roll."

Once the people get the idea that they can through their political power demand railroad service without paying what it costs; and once 1,000,000 railway employees, with their 3,000,000 or 4,000,000 votes, get the idea that they are "entitled" to a certain level of wages whether their work earns enough to pay such wages or not—then under public ownership the U. S. Treasury would have a burden on its hands which might well make the charges on the present national debt look modest indeed.

Captain Patterson has done a patriotic service by raising this question, and his restraint from plumping for a dogmatic answer to it is extremely admirable. But he does lean to government ownership. So we ask him just what of the present difficulties of the railways would disappear if such a change were made; and how he would protect the industry—a natural prey to "special interests" as it is—from becoming an intolerable burden on the public treasury.

# Wage-Cut Hearings Concluded

Monday's oral arguments ended presentations before  
Emergency Board—Report due October 27

**M**ONDAY's oral arguments concluded public hearings in connection with the 15 per cent railway wage cut controversy which is being investigated by a three-man Emergency Board consisting of Chief Justice Walter P. Stacy of the Supreme Court of North Carolina (chairman); H. A. Millis, retired chairman of the University of Chicago's department of economics and James M. Landis, dean of Harvard Law School. The board, which was appointed by President Roosevelt on September 27, is required by the Railway Labor Act to make its report to the President within 30 days from that date, i. e., by October 27.

The public hearings, which were held in the caucus room of the old House office building in Washington, opened on September 30 and continued through October 17 on a six-hour-day, six-day-week schedule. In adjourning the sessions Chairman Stacy made a brief statement, which is published at the bottom of this page. Among other things he observed that the case brought out certain conflicting equities, which he thought might have arisen because of the undertaking "to use one yardstick, when another should be applied." For example, he went on "one may be interested in the purchasing power of eggs . . . but if one's chickens fall sick, it may be necessary for the time being to turn your attention to the health of your chickens." He added, however,

that the foregoing "is venturing upon the merits of the case and it is not now desirable to express any opinion upon the subject."

Railroad arguments were made by J. Carter Fort, general solicitor of the Association of American Railroads, who was in charge of the carrier presentation; and S. S. Alderman, general solicitor of the Southern. Judge Charles M. Hay's argument on behalf of the 18 organizations making a joint presentation through the Railway Labor Executives' Association was supplemented by a twenty-minute talk by Ray T. Miller, counsel for the Brotherhood of Locomotive Engineers; while Tom Davis of Minneapolis, Minn., summed up the case of the non-affiliated Brotherhood of Railroad Trainmen.

Last week's sessions, subsequent to those reported in the *Railway Age* of October 15, covered the closing of R. L. E. A.'s case with the testimony of Senators Wheeler of Montana and Truman of Missouri; the B. of R. T. presentation through its president, A. F. Whitney; and the rebuttals. Senator Wheeler's claim that the railroads could save at least \$1,000,000 a day through the elimination of "preventable wastes" brought in A. A. R. President J. J. Pelley as a rebuttal witness for the railroads. Mr. Pelley proceeded to examine in detail the "twenty-odd rat holes" wherein the senator had claimed railroad moneys were being wasted; and he found

## Chairman Stacy's Statement at Close of Hearings

"Perhaps it is unnecessary to restate the reasons why this Board is here. They have already been enumerated in the record.

"I would like to express to the parties on both sides the appreciation which is ours of the help that you have rendered us in understanding the problem which is before us. Perhaps, for the record, I should say that we have received a number of letters, telegrams, resolutions and communications, and offers of additional evidence. The exigencies of the time limit, however, will not permit further extension of the evidence in this case. If we had further time it would, of course, be a pleasure for us to hear those who wish to present further testimony, or to have extended the time for you gentlemen to have presented your case.

"A few letters seemed to be cynical in character. Perhaps they deserve no further notice than to say that the cynic doesn't count,—the man who knows not and knows not that he knows not, the man who points out where the strong man stumbled and where the doer of deeds might have done them better when he himself knows neither victory nor defeat.

"The credit belongs to the man who is in the arena, whose face is marred with dust and sweat and blood, who knows the deep emotions and the high enthusiasms, who risks all that he may win a competence for himself and those depending upon him.

"And it is agreed that the time has come in this country when the man who earns his daily bread by the use of his arm or by the cunning of his hand, whether on the

farm, in factory or the shop, is to enjoy a larger share of the profits of his toil. But what is said in respect of profits, may not apply in the case of deficits. The two are not the same.

"There are in this case certain conflicting equities. If that were not so you men, strong men that you are, would not be here debating the issue. Perhaps it comes from undertaking to use one yardstick, when another should be applied. For example, one may be interested in the purchasing power of eggs and under normal conditions it is desirable that the purchasing power of eggs shall be high. But if one's chickens fall sick, it may be necessary for the time being to turn your attention to the health of your chickens. However, that is venturing upon the merits of the case and it is not now desirable to express any opinion upon the subject.

"Just one other point. During the hearings perhaps I have been guilty of some levity or some humor, so-called. The only purpose of that was to break the strain at the time. I think you all understand that the members of this Board are accustomed to dealing with serious questions in a serious way. In that spirit we approach this problem and if we can feel the rock beneath our feet, there we shall stand, come what may, storm or sunshine, night or day.

"So, gentlemen, we come to the end of the evidence in the case. We thank you again for giving us the information which you have. We will now undertake to digest it and discharge the obligations that devolve upon us as best we may."



that the Wheeler estimate of potential savings amounting to more than would be realized from a 15 per cent wage cut "is not the fact."

As he went over the Wheeler examples of "preventable wastes," the A. A. R. president conceded that there "might be a little something" in some of them; but he dismissed the majority with specific comments on the senator's generalizations. The charge that railroad dividends of 1929 and 1930 were excessive the witness passed by saying: "My hindsight is just as good as the senator's." Later Mr. Pelley said that the railroads "don't claim to be as pure as Ivory soap," but, he added, they are nevertheless "pretty good"—they have been "under the scrutinizing eye of this government for 50 years, and every man at the head of a railroad . . . has known all of his life that his every act must stand the test of public approval."

Senators Truman and Wheeler were attended by Max Lowenthal, counsel for the Senate sub-committee which conducted the so-called Wheeler investigation of railroad finances. During the presentation of Senator Truman, Mr. Lowenthal's promptings and elaborations of the witness' testimony reached the point where Mr. Fort asked that the Wheeler-committee counsel be sworn as a witness. This was done.

When he returned to cross-examine Mr. Pelley, Mr. Lowenthal justified his appearance in that connection on the basis of what he said was Senator Wheeler's feeling that the A. A. R. president's testimony had attacked both the validity of the senator's statements as well as a portion of the rail-finance probe.

#### B. of R. T. Also Had a "Book"

Meanwhile Mr. Whitney had made his presentation while B. of R. T. Counsel Davis had offered as "Trainmen's Exhibit No. 1" a 482-page book entitled "Main Street—Not Wall Street." The press release in connection with the latter called it "a thorough treatment of ailments and errors of the railroad industry;" but Mr. Fort thought differently—he called it "a rather extraordinary conglomeration of unsupported conclusions and irrelevant matter." The carriers' counsel failed, however, in his effort to have the book ruled out, as Judge Stacy found that some parts fell into the category of supported evidence, although other sections were in the nature of argument or unsupported conclusions. The chairman assured Mr. Fort that the board will so "understand the situation" that the unsupported statements "will have no weight with us."

R. L. E. A. Chairman George M. Harrison concluded his testimony on October 13 by offering for the solution of the railroad problem a plan, which had been approved the previous evening by the R. L. E. A. Mr. Pelley was "much interested" in this Harrison plan—he thought it was a program upon which management and men "with some talk across the table might pretty fully agree upon." But, the A. A. R. president added, "there is no plan, there is none that can be made, there is none that can be put into effect that will meet this emergency that we are in now; there is nothing that can be done for this railroad industry that would obviate the necessity of prosecuting this reduction to the last."

Chairman Stacy also did some talking about national plans when he asked Senator Wheeler if it were not necessary that there be some such program "by which the problem can be solved." For example, Judge Stacy went on, "we have gotten into a situation that is a little difficult. When you come to reduce wages on a national scale that necessarily results in injustices and inequalities . . . the employees on the strong roads are not pay-

ing tribute to the industry, but to the strong roads, and they are not helping the weak roads. Now on the other side of that proposition there must be some national plan by which management can face that situation." Senator Wheeler agreed with the foregoing, and Judge Stacy asked if the machinery for such a set-up is in existence. The witness thought the necessary machinery could be set up; he did not think it was already in existence. "That is the point," said the chairman.

#### Harrison Offers Rail Plan

Mr. Harrison's plan dealt with such matters as competition, rate policy, financial reorganizations, consolidations and government loans. In connection with the first of these it called for "a genuine attack upon the problem of competition." This would be bottomed upon federal regulation "of substantially the same character" for all transport agencies in the interest of creating a fair field from which the public could choose the agencies best suited to its varied transport needs. All of this transport regulation would be delegated to one federal agency which would "undertake to guide the development of the transportation machinery of the country in its various branches in the field where it can most economically and efficiently serve the public." Meanwhile the railroads, in the opinion of R. L. E. A., "must adopt a new method of giving service to the public by the operation of light and high-speed equipment, so that they can run more frequent units of transportation and move when the public wants to move." It is realized that such a transition would require new capital, and thus the suggestion that the "government can safely make available at lower interest rates, funds to permit the railroads to modernize their plant in this direction."

As to rate policy the plan asserts that the Interstate Commerce Commission "should fix a rate base that will, taking good times and bad times over several business cycles, permit the railroads under honest, efficient and economical management, to create reserves to tide them over the cyclical periods." This section goes on to say that the carriers "by law should be required to accumulate a reserve fund or surplus fund in liquid assets, equivalent to three times annual fixed charges, before they are permitted to pay additional dividends." Also, it is suggested that debt retirement should be required in the interest of improving the stocks-to-bonds ratio.

In connection with the general problem of financial reorganizations, the plan makes two suggestions — restrictions on I. C. C. power to approve bond issues, and compulsory reorganizations after a time allowance for voluntary revamping in cases where the capitalization is "top-heavy so far as outstanding debt goes." With respect to consolidations, R. L. E. A. concedes that there are some "that should be made in the public interest." It thinks they should be consummated only after the I. C. C. approves, and only if the merger plans are drawn "to amply provide for fair and equitable treatment of labor that will have to assume some hardships when the unifications are made." Also, the 18 unions would "subscribe to the lending by the federal government of its funds for short-term purposes in situations where the railroads may need some temporary relief, conditioned upon the test that these other things be done as part of the general rehabilitation and readjustment program for the industry."

After outlining this program Mr. Harrison went on to suggest that the railroads need the cooperation of their employees and the government—cooperation which may not be forthcoming if the carriers undertake to cut wages. "The railroads," he added, "should withdraw



this request for a wage cut. Business has recovered, it is continuing to get better, and they ought to begin to attack the fundamental situation now that we have a promise from the President himself that he will sympathetically assist in getting the federal government to adopt a broad-scale rehabilitation program in the interest of the railroads."

### Labor Wanted to End "Share-the-Work" Practices

During the cross-examination of Mr. Harrison, General Solicitor W. T. Faricy, of the Chicago & North Western, brought out the fact that last year's wage-increase agreements with the non-operating employees provided for a discontinuance of share-the-work practices. The witness explained that this was done because many employees working under share-the-work arrangements were making less than persons on relief; yet they were ineligible for relief themselves. Thus the labor leaders thought it would be "more human" to "starve only a part of the men" rather than all. Questioned on his exhibit purporting to segregate the portion of railroad investment "used," Mr. Harrison said he was not trying to quarrel with the railroads about the rate of return—he was merely trying to show that the situation is better than the carriers claim. He wishes they had "twice as much money" as they have. Nor did he want his exhibit segregating the "problem" railroads to leave the implication that labor was advocating a different scale of wages on such roads. Another exhibit, in which Mr. Faricy suggested a correction, Mr. Harrison said he had not seen until he was on the stand a couple of hours.

Turning to last Spring's maneuverings on the railroad problem, Mr. Faricy asked about the plan for a guarantee of net income which Mr. Harrison had brought into one of the White House conferences, only to have it turned down by the President. The witness said that he had never offered the plan as a subsidy, adding that it was so labeled by others. In his opinion the railroads would have repaid the government and the latter would have lost nothing in the long run. It was also brought out that the witness agreed with Senator Wheeler's view that water-carrier regulation, rather than a more liberal fourth section, should be the first step in a program to equalize competition between rail and water carriers. However, Mr. Harrison supported the Pettengill long-and-short-haul-clause repealer because the railroads wanted that first.

### Drops "Double-Crossing" Charge

When the witness spoke of differences of opinion among railroads as to the merits of last session's bill to liberalize Reconstruction Finance Corporation lending, Mr. Faricy asked if there were not differences of opinion in labor's ranks. "Yes, lots of them," was Mr. Harrison's reply. Also, the R. L. E. A. chairman told Mr. Faricy that he doesn't accuse the railroads of "double-crossing" labor with last May's wage-cut notices. He agreed that management didn't give him "a commitment that they wouldn't do it, and then went ahead and did it." In this connection, as reported in the *Railway Age* of May 28, page 915, the Railway Labor Executives' Association last May issued a press release charging that the carriers had "double-crossed labor" in serving the notices despite an "understanding that no such notice would be served while the workers were co-operating with management in seeking financial relief through other sources."

Mr. Harrison told Dean Landis that R. L. E. A. was

"unalterably opposed" to any wage cut from the very beginning of the controversy; and that the purpose of introducing the telegram from William Green, president of the American Federation of Labor, was to show the general opposition of organized labor to any pay reduction for railroad workers. Mr. Faricy resumed the cross-examination to ask if the railroad dividends of 1929 and 1930 were not in keeping with the "business-as-usual" policy of the "then occupant of the White House," and the general feeling that "prosperity is just around the corner." Mr. Harrison said that the railroads knew "the corner was so far away you couldn't see it." But he did not charge any impropriety—he knows "it is easy to be a 'grandstand manager,'" and he doesn't want to be one; or a "Monday-morning quarterback" as Mr. Faricy put it.

After Mr. Harrison's testimony, David Kaplan, statistician for the International Association of Machinists, returned to the stand to introduce an exhibit based upon "a study of the Interstate Commerce Commission decisions on excess cost of construction and repair of railroad equipment through contracting out of work." The exhibit's title—"Squandering the Maintenance Dollar"—prompted Mr. Fort to ask if the witness had any experience writing titles for the motion pictures. After some argument among counsel, Judge Hay got the exhibit into the record, but he removed the word "squandering" from the title.

### Testimony of A. F. Whitney

B. of R. T. President Whitney opened his testimony with the assertion that "the problems of the nation's railroads cannot be solved or in any way ameliorated by cutting the already inadequate wages of their employees." "We are fully persuaded," he went on, "that the representatives of the employees have a very full and complete knowledge of the whole picture of the railroad industry, many angles of which have not been presented to this board by the carriers at this hearing. As representative of train and yard men and dining car stewards, we fully appreciate, with grave concern, that more than one million workers have been crowded out of the railway industry since 1920, and the railroads' payroll during that period has been cut about half. And since 1920 approximately 70,000 members of the Brotherhood of Railroad Trainmen were crowded out of the industry and 50,000 were obliged to drop their membership in the Brotherhood.

"Many of these men have lost their homes, families have been shattered, and society has been injured under this cruel Juggernaut of civilization. We fully believe that a wage cut such as suggested by the carriers, or any part of it, if accepted by the employees, would result in a vicious wage cutting spiral throughout practically every industry in the land, that business would suffer, that the economic strength of railway labor would be impaired, and that, within a few months, we would be confronted with a demand on the part of the carriers for another cut in wages.

"We cannot believe, nor can we subscribe to the unsound theory that basic wages should fluctuate with business conditions in the industry, as such a philosophy suggests a lowering of living standards during depression periods and is contrary to public policy."

Mr. Whitney, in describing various types of railroad work, stated that the service of trainmen is extremely hazardous and onerous. "It must be borne in mind," he added, "that the work required of these men is of an exacting character. Some of the essentials are clearness of mind, sobriety and constant watchfulness in order

to prevent injury to the property of the carrier or to the public whom the carrier transports. The wage cut which is now proposed could have no other effect than a serious one upon the peace of mind of the railroad worker."

Mr. Whitney found authority for many of his statements in the above-mentioned "Main Street—Not Wall Street," the book prepared by the B. of R. T. (and copyrighted) as a reply to the railroads' demands for a wage reduction. In one such quotation Mr. Whitney said: "Despite the pillaging of the financial resources of the railroads by rackets within the industry and by rackets from without, the carriers come forward with demands that their employees accept a reduction in wages. Railroad management attempts to support its demands by asking the question 'Where is the money coming from?' When we present the picture of the wealthy roads on the one hand and the milking of the weaker roads on the other; when we present the causes for the bankruptcy of the roads in the Mississippi Valley, the picture of the railroad industry is not what the carriers would like the public to believe. Let the railroads heed the cries of two of their presidents before the Wheeler committee; let them institute a just and fair division of rates on through traffic; let them eliminate the private-owned car-hire racket; let them cease milking the weaker roads; let them cease making wasteful expenditures; let them stop the practice of rebating in their unnecessary wasteful competition for traffic; let them eliminate wasteful and costly rackets. Let them put their houses in order. A wage cut will not solve the problem.

"Freight and passenger rates apply to rich and poor alike. It is a fundamental theory of capitalistic economy that all buyers pay the standard rate or price. To contend that a railroad which has been plundered into bankruptcy by financial mismanagement and gambling, should be permitted to obtain its labor at a cheaper rate, is no different in principle than to contend that the railway employee who goes from the 'pay car' to a poker game and loses his money, should be allowed to buy his groceries at a discount."

During another part of his testimony, Mr. Whitney charged "extravagant and wasteful" practices in the railroad industry, specifying amounts spent by the carriers for "lobbying and propaganda." He said that carrier revenues are depleted through concessions to favored shippers, "wasteful" investments in warehouses, grain elevators and motor vehicles, on financial loans to favored shippers. There was no cross-examination of Mr. Whitney.

#### Trainmen's Exhibit No. 1

"Main Street—Not Wall Street," known to the record as "Trainmen's Exhibit No. 1," was issued in two editions—a limited cloth-bound edition for members of the board, counsel and members of the Carriers' Joint Conference Committee, and a paper-bound edition for the press and a few others who were sufficiently alert to grab them. Each of those receiving a copy of the limited edition found his name embossed in gold letters on the cover. In the book markets the work will sell for \$5, according to the "book review" released to the press when the exhibit was introduced. The book is dedicated "To the greatest liberal and finest humanitarian of our times, Franklin Delano Roosevelt, and to the twenty-seven million workers, railroad employees, farmers, business and professional men and women who supported him in 1936, and who, Thank God, believe in him today." Upon the title page there is quoted the famous climax of William Jennings Bryan's "cross-of-gold" speech.

There are 29 chapters, including the conclusion, as well as appendices and a general index. The work is divided into three parts. Part I covers the history of railroad wage disputes from 1932 to the present time; Part II deals with "Extravagant and Wasteful Practices;" and Part III with "The Looting of American Railroads." The foreword by Mr. Whitney calls the wage-cut proposal a "most sinister movement to prevent recovery, to discredit the Administration and to destroy Democracy."

The day following Mr. Whitney's appearance, Mr. Fort opened the session with his attack on the book which he said violated "the most fundamental rules of fair play" in that its "some 500" pages had been offered for the record too late to permit adequate preparation for cross-examination. The railroad counsel thought the exhibit was "perfectly worthless," except as it might be regarded as an argument on the issues before the board. Mr. Davis protested that Mr. Fort was attempting to change the rules in the middle of the game, adding that he had said that the B. of R. T. would also have "a book" when the railroads offered the so-called "little gray book," i. e. the pamphlet entitled "Railroads and Railroad Wages, 1938." The latter, Mr. Fort pointed out, was made public "months ago" and was put into the record only because R. L. E. A. counsel had referred to it in cross-examination of carrier witnesses. The controversy was settled when Chairman Stacy made his above-mentioned ruling that the B. of R. T. book could go in, and that its unsupported statements "will have no weight with us."

Senator Wheeler made two separate appearances before the board; he came in during October 14's morning session to make a brief general statement and returned on the afternoon of the same day with more detailed testimony based upon the record of his rail-financing investigation. Also, he issued a statement to the press on the evening of October 15, commenting upon A. A. R. President Pelley's testimony before the board on that day. Mr. Wheeler was glad to appear before the board "to put at your disposal information which we gathered and made public in our record"; in fact, he was "glad to make the entire staff serving our committee available for assistance to your board for a reasonable period of time."

#### Wheeler No Partisan

Although invited by Judge Hay, the senator said he had not come "to be a partisan for one side or another." He feels that a railroad wage cut "would be a blow to our present recovery, to our emergence from the recession of recent months"; and he thinks "the country as a whole would benefit if there were no cut." At this stage of his testimony Senator Wheeler used the earnings figures for the eight-year period 1930 to 1937, estimating (under handicaps thrown up by the "antiquated nature" of railroad accounting) that during that period there was a net available for fixed charges of between five and six billion dollars. Whether this money was reinvested in plant, paid out in dividends or held for a rainy day, he said, was a matter within the discretion of the carriers.

When Senator Wheeler returned for his performance at last Friday's matinee he brought with him his examples of "wastes and losses in the railroad industry which if eliminated would enable the railroad industry to save at least one million dollars a day." He had the "courage" to attempt such an estimate "because of the fact that 26 or 28 years ago one of the great Americans of our time was willing to make an estimate of a similar



sort. Back in 1910 or 1912, Louis D. Brandeis . . . acknowledged that the railroads were not making an adequate return . . . but he said that they were going at their problem the wrong end to." Mr. Wheeler concurs.

A press release issued in connection with the senator's testimony tabulated 21 examples of "preventable wastes." His testimony summed up his charge as being addressed to: "Losses through fraud by persons in control of a railroad; losses through milking by persons in control; wastes by paying tribute which should not be paid; losses on the stock market; improper dividends; improper purchases of one sort or another; wastes in operation of the railroads; wastes in the receivership or bankruptcy proceedings of the railroads; wastes in reorganizations of railroads." Much of the senator's testimony in this connection was a citation of practices brought to light by his finance probe. Under cross-examination he was a "Yes, but—" man, insisting upon supplementing his answers with readings from the record of his own investigation. When the names of Mr. Pelley and A. A. R. Vice-President R. V. Fletcher came into the discussion, railroad counsel observed that they are "very able men." "You're telling me they're able men," said the witness. Senator Wheeler told Judge Hay that there is no "unkindly" feeling toward the railroads in Congress; and he personally would support a constructive legislative program agreed upon between management and men—"provided they don't come asking for all the money in the treasury to subsidize them."

#### Truman Sees "Banker-Management"

Meanwhile Senator Truman, of Missouri, had appeared to tell the board how disappointed he was "when the management of the railroads injected the issue of wages into the plans that were being worked out for the rehabilitation of the carriers." As he sees it, "the difficulty with the railroads is one of long standing, and came about through banker management." Also, it was Mr. Truman's opinion that railroad management "is living in 1893 instead of 1938"; he knew of an instance where a railroad employee had been fired after a display of individual enterprise. On cross-examination, Senator Truman admitted that he had made no study of recent railroad results, nor did he know the conditions of the bus, truck and air transport industries which he had cited as examples of forward-lookers. Asked by Mr. Fort if he had not generally favored labor's proposals in Congress, he said "not always"—he was against the train-limit bill. Referring to the witness' criticism of the railroads' failure to set up sinking funds for debt retirement, Dean Landis observed that he saw nothing in the Interstate Commerce Act which would prevent the I. C. C. from requiring sinking funds. Senator Truman agreed; he thinks the I. C. C. needs reorganization as well as the railroads. Then Dean Landis asked if the blame for the present situation rests partly "on public authorities." The witness replied that he thought the I. C. C. "has fallen down on its job in that respect." And Mr. Lowenthal observed that the commission as well as railroad management "had a fine opportunity which was not availed of." In fact, the Wheeler-committee has "become somewhat despondent" when he sees reorganization plans which, he said, will actually increase the debt of the revamped roads.

After the close of Senator Truman's testimony, B. of R. T. Counsel Davis announced that his client was willing to co-operate with railroad management on a plan for the solution of the railroad problem; but he added that a wage cut is not the solution, and any other pro-

posal winning B. of R. T. support must protect railroad workers. Also, at this point B. M. Jewell, president of the Railway Employees' Department, American Federation of Labor, returned to the stand to introduce an agreed-upon exhibit showing the parties and crafts involved in the proceeding. A separate exhibit of the same type was introduced for the B. of R. T. by Mr. Davis. Aside from Mr. Pelley, the railroad rebuttal witnesses included R. F. Welsh, chief examiner of the Association of Western Railways; C. D. Mackay, assistant vice-president of the Southern; and Dr. Julius H. Parmelee, director of the Bureau of Railway Economics. Later R. L. E. A. brought back Witnesses Kaplan and Keller to reply to the Welsh and Mackay testimony, which related respectively to the proportion of railway section men living in country districts and the proportion of skilled workers in the railroad industry.

#### Reductions in Executive Salaries

Much of Dr. Parmelee's rebuttal testimony related to the salaries of railway executives. He had made a study of 62 class I roads having about 88 per cent of the class I payroll. In 1929 there were on those 62 roads 1,121 positions paying \$10,000 or more; in 1937 there were 947 such positions, and the decline in aggregate salary paid to the group was 25.7 per cent. The 1929 list included 38 presidents; by 1937, eight of those positions had been abolished, 26 were cut in salary, three paid the same, and one was increased, although such increase came after a consolidation of the positions of chairman and president with a net saving of \$40,000 a year. The aggregate 1937 compensation of the 26 positions which received cuts was 40.7 per cent under the 1929 total.

Also, Dr. Parmelee called attention to recent pronouncements of Interstate Commerce Commissioner Eastman as to the need for an investigation of the railway wage set-up, quoting in this connection extracts from an interview with the former co-ordinator which was published in a recent issue of Barron's Weekly.

#### Pelley Answers Wheeler

As stated above, Mr. Pelley's testimony was in the main an endeavor to make a point-by-point reply to Senator Wheeler on the latter's list of examples of "preventable wastes." For example, on the charge of wastes in "reciprocal buying" the A. A. R. president pointed out that the main I. C. C. criticism of the carriers in this connection related to coal-buying practices; and, he added, the National Bituminous Coal Commission recently tried to set a minimum price for railroad fuel coal at an average of 20 cents a ton above what railroads were paying. In view of this Mr. Pelley thought the railroad coal purchasing agents "must have been doing a pretty good job." The witness thought there "might be a little" in the senator's charge that a shaky railroad defers maintenance to the point where the ultimate cost of restoring the property is augmented. Also, Mr. Pelley conceded that the holding company idea may be all wrong, but he pointed out that "the great Commonwealth of Massachusetts created one and made the New Haven Railroad put its Boston & Maine stock in it, and it is still there. . . ." And so on in similar fashion did Mr. Pelley discuss each of Senator Wheeler's examples. He also agreed with the observations of previous witnesses that the government is sympathetic toward the railroads; he thinks "that there is a better feeling toward us now, that is a more kindly feeling, a greater desire by all departments of the government to help us, than ever before." But he went on to reiterate how the railroads



"went through this thing from one end to the other before this wage movement was started," adding that he knew of his own knowledge that "this is the only way out for us."

Under cross-examination by B. of R. T. Counsel Davis Mr. Pelley denied that he had tried to stop the Wheeler investigation. He stated that he reached an understanding with Senator Wheeler that the latter would not let the probe interfere with the consideration by the Senate committee on interstate commerce of legislation in which the carriers were interested. After that Mr. Pelley "had no further objection to the investigation;" and the senator "made good" to him "150 per cent." Mr. Lowenthal asked Mr. Pelley about "banker" control and confronted the witness with several "Don't-you-know-that-the-record-of-the-Wheeler-investigation-shows—" questions. In most cases the witness did not, and finally he turned on his questioner to say: "I am not going to let you give anybody the impression that because there is one little example that might be cited where some railroad did some wrong, that that is what is going on in the railroad industry as a whole, and that is the impression Senator Wheeler gave yesterday, and it is not true."

#### Alderman Highlights Railroad Brief

The carriers' argument, opened by Mr. Alderman, was based on their 167-page brief, which took the position that "upon all the competent and relevant evidence in the case" the board should make an ultimate finding in favor of the carriers. It went on to say that present wage scales "have brought the industry to a position where it cannot open the doors of its purchasing houses, cannot buy the necessary materials and supplies and continue the necessary maintenance work on its properties." A downward adjustment of these wages, it is asserted, will improve the general economic situation, and the opportunity for employment on the railroads. The brief, as did Mr. Alderman, goes on to argue that the general level of wages is the issue, and to discuss in turn the present financial condition of the railroads, which is called worse than that of 1932 when labor accepted a voluntary pay deduction; competitive developments which have affected traffic; the constant search for economies; and the necessity for continuing improvements. It is readily admitted that the employees are entitled to a fair living wage, and in this connection there is cited the evidence showing the increase in average compensation and the "sharp rise" in real income.

As the carriers see it the case is a "severe test" for the Railway Labor Act which "has been widely praised as fair and as a model for the regulation of labor relations." "The employees' theory in this case," the brief goes on in this connection, "is essentially an attempt to have applied, in defense of their present high wage rates, a general political or academic philosophy against wage reductions, regardless of the conditions of general and railroad business, regardless of their present earnings as compared with their earnings under prior and more favorable conditions, regardless of their earnings as compared with the earnings of the other major classes of wage earners and citizens and with their respective trends; and an attempt to keep railroad employees' wage rates up at the present excessively high levels by the mere momentum of past movements which have pushed them to those levels under other and more favorable conditions."

"If such a theory is to prevail against a meritorious case presented by the carriers for wage reductions, then the law will have proved to be indeed a 'one-way' law, useful only in aid of the employees when they are plain-

tiffs, and it will have failed to accomplish that preservation of the public interest for which it was intended."

#### Board Can't Decide on Long-Range Plan

From the foregoing the brief continues to discuss among other things, the importance of the "ability-to-pay" factor, the fact that the condition of the industry has determined past adjustments, the refusal of labor to arbitrate the controversy, the plan for a solution of the railroad problem which was offered by R. L. E. A. Chairman Harrison and the testimony of Senators Wheeler and Truman. The latter are called "an attempt to divert attention," since, as it is next pointed out, there is nothing in the Railway Labor Act which authorizes the board "to review the work of a senatorial investigating committee;" nor does it have authority to decide upon any long-range program.

In the course of his argument Mr. Alderman paid tribute to R. L. E. A. Chairman Harrison as a witness whose testimony involved "not one blow below the belt." Also, he went on to say that the only evidence of inefficiency or waste in railroad management that he saw was that resulting from letting "George Harrison go into a labor union career instead of getting him on the side of management."

#### B. of L. E. Counsel Chides Roads for Last Year's Pay Increase

Mr. Miller's argument was in the main a call for adherence to what he conceived to be the philosophy of the New Deal. He declaimed upon the Constitution and the Declaration of Independence between his scornful expressions on what he found to be the principal railroad contention—that the wage cut was the "wise thing to do." Mr. Miller had searched the carrier presentation in vain for a "rule of justice," and he reminded the railroad attorneys that "we now live in a different era," that the New Deal has brought with it a "progressive philosophy." Also, Mr. Miller advised the board that it could not rely upon the judgment of a management, which now says the recession is continuing, but which foresaw the future in such faulty fashion last year that it awarded a wage increase almost "on the day of the stock market collapse."

A railroad wage cut, he went on, will be followed by similar demands by all business. He reminded the board that it represents "the people" and suggested that the people "want justice;" they do not want the board to "be wise, as the railroads say." On the whole Mr. Miller thinks the railroads have done pretty well; he conceded that 33 per cent of the mileage is in receivership, but, he added, "they're still running."

#### Judge Hay's Argument

Judge Hay asserted at the outset that the evidence showed the wage-cut proposal to have been "conceived in haste and born in confusion." Referring to the testimony of H. A. Enochs, chairman of the Carriers' Joint Conference Committee, that the "deck hands" had framed original recommendation, the R. L. E. A. counsel declared that "the captains and pilots and other officers retired to the cabin and left the storm-tossed ship to the deck hands."

Mr. Hay went on to list and discuss in turn the reasons for labor's opposition to the cut. In this connection he argued that the reduction would be unjust to the workers, a violation of sound social policy and a disastrous social policy. As Mr. Hay appraised the

situation the board has "such an opportunity as few boards ever created in America have had to render a great national service;" an opportunity "to lay down for this industry and the other industries of the country, principles which should govern them in making wage adjustments with the men remaining in industry after their fellows have been eliminated by technological improvements." Returning to his listing of labor's opposition arguments, Judge Hay asserted that a cut would harm the railroad industry; that wages are not the source of railroad problems; that a cut would deter needed reforms and would be inconsistent with national policy.

In stating the general attitude of railroad workers Judge Hay found that they "stand upon the American concept that each and every man is entitled to the right of life, liberty and pursuit of happiness; that we stand loyally back of the leadership of the country which is dedicated to the realization by all men of the American ideal; that we resent and denounce efforts from whatever source or from whatever motive they may spring, calculated to retard and defeat the national effort now so earnestly and zealously made and the fulfillment of the program now so well under way."

In closing the R. L. E. A. counsel warned that the wage cut would interfere with the working out of a national transportation policy; he thought it "sad to realize that at a time when the government wants to help them by getting all heads together . . . the representatives of the railroads come forward only with a plan for a wage cut." He went on to outline Mr. Harrison's program and suggested that the "time is ripe to move forward."

#### B. of R. T. Counsel Davis Most Eloquent

Although Judge Hay waxed quite eloquent it would perhaps be decided by impartial judges that B. of R. T. Counsel Davis was again the orator of the occasion, as he had been when opening statements were made. His was an attack upon the "bankers" and it ended with Bryan's famous "crown-of-thorns-cross-of-gold" climax. The wage cut proposal, Mr. Davis found to be a "rank betrayal of railroad labor," in the face of evidence which "abundantly proves that the management, not the men, are responsible for the condition of these roads."

He went on to say that one of the most significant things appearing in the testimony is the fact that the railroads say: "We want you to take this industry as a whole—to take the railroad industry as an entity." The evidence, he observed, showed that in 1937—taking all the railroads in this country, bankrupt, unprosperous and prosperous railroads—they had a net income of more than \$98,000,000 after the payment of fixed charges. With such a state of facts, he observed, the people of this nation would be "stunned beyond expression if a recommendation should be made that the railroad workers take a wage cut."

"These large transportation systems," Mr. Davis continued, "stand before this commission convicted of fraud and deceit, and it is straining human credulity to ask these railroad workers to bow their heads and bend their backs and accept at the hands of the railroads the inhuman doctrine of 'ability to pay' as the basic element in fixing their wages, when they know that if such a principle is established they will be left to the utter mercy of the bookkeeping and accounting departments of these railroads. This commission should unhesitatingly condemn in its recommendation that kind of a philosophy, and the people of this country should be told that not only will the commission refuse to accept such a philoso-

phy, but that just, equitable and fair dealing demands that such a doctrine shall never be established in the fixing of wages of the railroad workers. . . . From the day a wage cut was decided upon, through the negotiations with the carriers' committees, before the Mediation Board, and before this commission, these railroads with brazen effrontery have given no reason that is sound, just and equitable for cutting the wages of the men. Their only claim is, as Mr. Enochs said to us when we met with his committee, 'We haven't got the money—we have a job to do,' and the 'deck-hands' of these railroads propose to do it by taking \$250,000,000 from the pockets of labor.

"These railroad managers and presidents are not the real parties in interest. They are merely the 'Charlie McCarthys' of the House of Morgan and of Kuhn, Loeb & Co., and you know from history, and the people well know, that if this wage cut is recommended the principal result will be that the following day you will see stocks of the railroads rise on the stock market."

In conclusion, Mr. Davis charged that the railroads, through propaganda, "endeavor to poison the public mind against the railroad brotherhoods and their officers." He said that the carriers "constantly endeavor to slash wages and thus compel their employees to live in a state of uncertainty and fear, and to accept less than a living wage."

#### Fort Calls Roads "Three-Legged Stool"

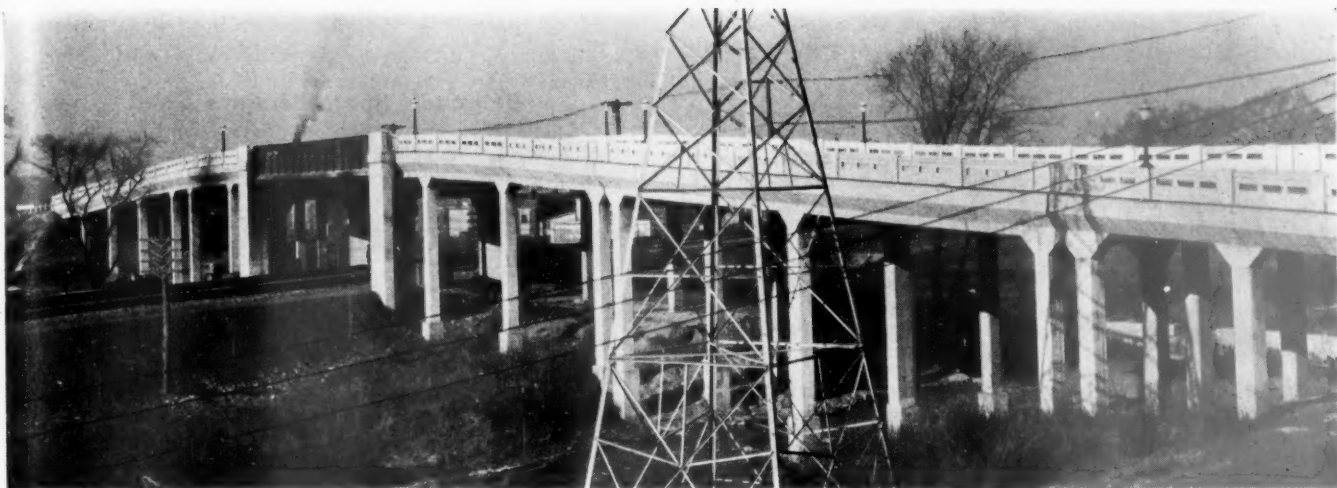
Mr. Fort's closing argument was a dispassionate one; he thought the board had enough "oratory" for one day. He was speaking, he said, "for the management of an industry which has responsibilities to the public it serves, to the men whom it employs, and to the investors whose money it uses. So, like any other self-supporting enterprise, the railroad industry is a sort of three-legged stool. As long as the three legs are fairly balanced in length, the stool stands steady and secure. But if one leg is too long for the others, or one is too short, the stool gets wobbly, and may collapse under strain."

"The latter," he went on, "is the situation of the railroad industry today. The 'wages' leg of the stool is too long for the other two. If we could keep the 'wages' leg at its present length, or even make it longer, and at the same time keep the other legs in balance so that the industry as a whole might stand firm and upright, no railroad manager would object. We should be glad to do it. But, as we have shown here, it simply is not possible at this time and under present conditions to maintain railroad wages at their present levels, and at the same time keep the industry going as a self-supporting concern."

"The situation calls for the application of good common-sense. Instead, this board has been treated to a regular Halloween parade of the hob-goblins. Allegations of incompetence and waste in operation of railroads have been inflated to grotesque size—although, in this same proceeding, witnesses for the employees have introduced exhibit after exhibit showing that railroads are operating today with greater efficiency and more intensive economy than ever before. In fact, some of the witnesses seemed to feel that railroads are showing too much efficiency, because they have had to get along with fewer men than they had when wages were lower than they are now, and when the investment in transportation plant and equipment was less. And those other old reliable hob-goblins of alleged overcapitalization, increasing debt, 'watered stock,' and 'Wall Street banker control,' have been made to do heavy duty. But the record here is perfectly clear as to the real cause of the present

(Continued on page 592)





Over the Tracks of the Delaware, Lackawanna & Western at Elmira, N. Y.

## Seek Relief for Railroads from Grade Separation Costs

Constitutional amendment reducing carriers' share of expense to maximum of 15 per cent to be put to vote in New York State on November 8

**A**PPORTIONMENT of the cost of railway-highway grade separation projects in the various states has long been based on the view that the railroads are primarily responsible for the hazards and inconveniences inherent in grade crossings and that they should, therefore, be required to shoulder a large proportion of the cost of such projects. This conception fails to consider the revolutionary changes that have occurred in railway-highway relationships during the last decade or two or to take cognizance of the acute financial difficulties of the carriers.

It is true that recent federal emergency and highway legislation has been in the direction of remedying this situation. Under the National Emergency Relief Act of 1935, \$200,000,000 was appropriated for use in defraying the entire construction costs of elimination projects to be selected by the states and the Federal Bureau of Public Roads. Moreover, subsequent federal legislation has made available for this purpose an additional \$150,000,000 annually during the fiscal years 1938 to 1941, inclusive.

While the funds made available under these appropriations are relatively small, this legislation is encouraging to the extent that it may foreshadow consistent and continuing federal appropriations for such purposes. However, in many states legislation is still in effect requiring the railroads to pay 50 per cent or more of the cost of grade separations, while in many other states the policy up to the time the federal program was initiated was for a state body to impose a substantial proportion (usually 50 per cent) of the total cost of the work on the railroads.

In the state of New York effective efforts are being made to remedy the situation where existing legislation

requires that the railroads be assessed for 50 per cent of the cost of grade separation structures, while 49 per cent is paid by the state and 1 per cent by the county. In this state the practice has been to devote the major portion of its allocation of federal crossing elimination funds to the rebuilding of existing grade separation structures rather than for new grade separations, with the result that the railroads have continued to participate in the costs of projects of the latter type in accordance with the existing law.

### Campaign Started in New York

In this state a number of public-spirited citizens, realizing that the railroads must be relieved from carrying a disproportionate share of the cost if the elimination of grade crossings is to continue at a satisfactory rate, have taken the initiative in a campaign to secure the necessary legislation. Prominent among this group are Robert Moses, commissioner of parks of New York City,\* and former Governor Alfred E. Smith. Largely as a result of efforts on the part of these and other individuals, an amendment to the constitution was adopted at the constitutional convention in June, 1938, which, among other things, provides that the railroads' share in the cost of grade separation structures shall be limited to a maximum of 15 per cent. Incidentally, it is of interest to note that the amendment was favored by Republican and Democratic delegates alike and was adopted by a unanimous vote. The proposed amendment, which is to be submitted to a vote at the general election on Novem-

\* Mr. Moses is also chairman of the Triboro-Bridge and other authorities; president of the Long Island State Park Commission; chairman of the State Council of Parks, and former secretary of state.



ber 8, omits the present provisions in regard to the allocation of expense and in lieu thereof provides, among other things, that:

The expense of any grade crossing elimination, the construction work for which was not commenced before January 1, 1939, including incidental improvements connected therewith, shall be paid by the state in the first instance, but the state shall be entitled to recover from the railroad company or companies, by way of reimbursement, (1) the entire amount of the railroad improvements not an essential part of the elimination, and (2) the amount of the net benefit to the company or companies exclusive of such railroad improvements, the amount of such net benefit to be adjudicated after the completion of the work and in no event to exceed fifteen per centum of the expense of the elimination, exclusive of all incidental improvements.

During the deliberations of the convention a memorandum containing a complete resumé of the grade crossing problem in New York State was submitted to the convention through the Committee on Highways, Parkways and Grade Crossings, of which Mr. Moses was chairman. This memorandum, which was compiled by the Associated Railroads of New York, includes a review of the changes in the method of proportioning grade elimination costs in New York that have been made from time to time, cites the changes in economic and transportation conditions which require the adoption of a new public policy, and produces figures to demonstrate the economic injustice of saddling the railroads with a disproportionate share of the cost of grade separation structures.

#### History of Cost Apportionment

During the early years of railroad development in the state, says the memorandum, grade crossings were sanctioned by law and encouraged by the people, but in 1897, after years of effort by the Board of Railroad Commissioners, the legislature established a new public policy, the ultimate goal of which was the elimination of dangerous grade crossings in the interests of public safety. Legislation enacted at that time provided that the expense of grade crossing elimination should be borne 50 per cent by the railroad company, 25 per cent by the municipal corporation and 25 per cent by the state. At the time this legislation was passed, the railroads comprised the principal method of transportation in the state and the highways mainly served local low-speed traffic, so that the railroad with its high-speed traffic was at that time considered the main cause of accidents at grade crossings.

With the advent of the automobile the state embarked on a large-scale highway construction program, thereby creating many additional crossings at grade.

In consequence of the latter development and because of the appearance of automobiles on the highway in increasing numbers, the demand for the elimination of grade crossings became more insistent and, as such eliminations were taking place at the rate of only about 20 per year under the then existing method of financing them, it became clear that means would have to be adopted for stimulating the construction of grade separations.

To accomplish this end a constitutional amendment was adopted in 1925, which permitted the legislature to authorize the creation of a state debt not exceeding in the aggregate \$300,000,000 "to provide moneys for the elimination, under state supervision, of railroad crossings within the state, at the expense of the state, railroad companies, cities, towns and villages." The money was to be loaned to the railroads and municipalities on liberal terms. A basis for apportioning the costs of grade separations was also laid down in the new ruling, which was

substantially similar to that embodied in previous legislation.

#### Railroads' Share Remains Fixed

Because of the reluctance of smaller communities to assume the added tax burden incident to the construction of grade separations, even under the terms of the new statute, further legislation was enacted in 1928, relieving towns and villages of any share of the cost. This act provided that the cost of elimination should be borne "forty per centum by the state, ten per centum by the county or counties in which the crossing is located and fifty per centum by the railroad corporation or corporations affected thereby." Since even this apportionment failed to have the desired effect, the legislature amended the grade crossing acts in 1929, reducing the county's share to 1 per cent and correspondingly increasing the state's share to 49 per cent. Thus, says the memorandum, while the legislature has taken cognizance of the inability of towns, villages and counties to share substantially in the cost of separating grades, the railroads' share "remains as fixed as the law of the Medes and Persians, even though official recognition has been given to the inequitable burden borne by the railroad companies."

With respect to the changed conditions that make necessary a revamping of public policy regarding the apportionment of grade elimination costs, the memorandum has much to say. In the early days of the grade crossing elimination problem, it points out that the separation of grades was necessary to protect the highway users against the dangers of high-speed trains and the public against delays and inconveniences occasioned by the expansion of railroad facilities. Now, however, it is the highways and the number of vehicles operating over them that are expanding so that today the primary objective of elimination work is the "furtherance of uninterrupted rapid movement by motor vehicles." Moreover, says the memorandum, the work "of eliminating railroad crossings at grade from the streets and highways of the state is public work. It is a public undertaking in behalf of the people of the state in which the railroads are required arbitrarily to pay one-half the cost."

#### Highways Expanding—Railways Shrinking

Just how rapidly the highways and the use of them have expanded while operations of the railroads have been declining is shown by a tabulation comparing state highway mileage and motor vehicle registrations with various indexes of railroad activity. These figures show that while the mileage of state highways was increasing 28 per cent between 1926 and 1936, railroad mileage in the state was decreasing 2.6 per cent. During the same period motor vehicle registration increased 34 per cent, while the quantity of railroad equipment in service decreased 31 per cent, the number of train-miles operated suffered a decline of 29 per cent and railroad car-miles operated decreased 25 per cent.

Not only has the grade crossing problem been augmented by the increase in highway activity but, as pointed out in the memorandum, the "rapid improvement in the design and construction of motor vehicles and highways in the last decade now makes it possible for highway users to travel at speeds in excess of that of many passenger trains. As a result hazards and safety problems unknown during the early part of the century have been created." These hazards, it adds, were not created by the railroads but by the other factors cited and by motorists "who insist upon operating their cars at top speed, even when

aware that they are approaching a railroad crossing." To give the public the maximum protection, the railroads "subject their employees to exacting discipline and rigid training" although no corresponding safety measures are imposed upon motor vehicle operators, "many of whom are negligent and reckless."

As an illustration of the contention that the railroads are no longer the primary factor in causing accidents at grade crossings, the memorandum cites figures to show that a large percentage of such accidents are caused by motor vehicles running into trains. During the year ending June 30, 1937, there were 161 such accidents in New York state, amounting to 34 per cent of all grade crossing accidents in the state. During the same year the number of persons killed or injured in accidents resulting from motor vehicles running into trains was 124, amounting to 48 per cent of the total number of persons killed or injured at grade crossings within the state.

### Court Decision Points to Changed Conditions

In further support of the position that the railroads should be relieved of paying more than a small percentage of the cost of grade separations, the memorandum quotes from the decision of the United States Supreme Court in a case involving the constitutionality of a state statute in Tennessee. Acting under this statute the state highway commission ordered the Nashville, Chattanooga & St. Louis to construct an underpass to effect a grade separation where a proposed state highway would cross the railroad, and to pay the mandatory one-half of the cost. When the railroad brought suit to determine the constitutionality of the order, the trial court issued a decree enjoining any attempt to enforce payment by the railroad. Upon appeal the Supreme Court of Tennessee reversed the decree, holding that it was improper to consider whether changed economic and transportation conditions had rendered the statute burdensome or unreasonable.

This judgment, in turn, was reversed by the United States Supreme Court which held that the Tennessee Supreme Court had erred in refusing to consider the effects of changed conditions on the constitutionality of the statute in its application to the instance under review. The decision of the United States Supreme Court, which was written by Justice Brandeis, comprises in effect a concise summary of all the reasons why the railroads should be relieved of the burden imposed by present arbitrary methods of apportioning grade separation costs. Justice Brandeis spoke in part as follows:

\*\*\* A statute valid when enacted may become invalid by change in the conditions to which it is applied. \*\*\* The charge of arbitrariness is based primarily upon the revolutionary changes incident to transportation wrought in recent years by the wide-spread introduction of motor-vehicles; the assumption by the federal government of the functions of road builder; the resulting depletion of rail revenues; the change in the character, the construction and the use of the highways; the change in the occasion for elimination of grade crossings, in the purpose of such elimination and in the chief beneficiaries thereof; and the change in the relative responsibility of the railroads and vehicles moving on the highways as elements of danger and causes of accidents. \*\*\*

\*\*\* The main purpose of grade separations, therefore, is now the furtherance of uninterrupted, rapid movement by motor vehicles. In this respect grade separation is a desirable engineering feature comparable to removal of grades and curves, to widening the highway, to strengthening and draining it, to shortening distance, to setting up guard rails, and to bridging streams. The railroad has ceased to be the prime instrument of danger and the main cause of accidents. It is the railroad which now requires protection from dangers incident to motor transportation.

Prior to the establishment of the federal-aid system, Tennessee highways were built under the direction of the county courts, and paid for out of funds raised locally by taxation or

otherwise. They served, in the main, local traffic. The long distance traffic was served almost wholly by the railroads and the water lines. Under those conditions, the occasion for the separation of grades was mainly the danger incident to rail operations; and the promotion of safety was then the main purpose of grade separation. Then, it was reasonable to impose upon the railroad a large part of the cost of eliminating grade crossings; and the imposition was rarely a hardship. For the need for eliminating existing crossings, and the need of new highways free from grade crossings arose usually from the growth of the community in which the grade separation was made; this growth was mainly the result of the transportation facilities offered through the railroad; the separation of grade crossings was a normal incident of the growth of rail operations; and as the highways were then feeders of rail traffic, the community's growth and every improvement of highway facilities benefited the railroad.

The effect upon the railroad of constructing federal-aid highways like that here in question is entirely different. They are not feeders of rail traffic. They deplete the existing rail traffic and the revenues of the railroads. Separation of grades serves to intensify the motor competition and to further deplete rail traffic. The avoidance, thereby, made possible of traffic interruptions incident to crossing at grade is now of far greater importance to the highway users than it is to the railroad crossed. For the rail operations are few; those of motor vehicles very numerous.

### Separations Increase Carrying Charges

In support of the contention that "orders for eliminations, which ignore the welfare of the railroads, are both onerous and unjust," the memorandum cites the results of an analysis of practically all non-federal grade separation projects carried out in the State of New York since 1926. The purpose of the analysis was to ascertain the difference between the annual cost of maintenance, protection, taxes and accidents at the crossings before elimination and the annual cost of maintenance, renewal, and taxes for the structure erected for separating the grades. For the state as a whole the analysis showed that, rather than effecting a saving for the carriers, the grade elimination work actually resulted in an increase in the annual carrying charges. This analysis excluded projects for which federal aid was received and also the elimination project of the New York Central on New York City's west side because it was interwoven with public and railroad improvements not required from an elimination standpoint. The results of the analysis are summarized as follows:

Number of grade crossings eliminated (of which 125 were by undercrossings, 149 by overhead structures, 258 by diversions and closings and 221 involved changes in line or grade of railroad) .....	753
Total elimination cost (exclusive of betterments) .....	\$81,268,500
Average elimination cost (exclusive of betterments) per crossing .....	107,900
Additional costs solely chargeable to the public for betterments or facilities other than necessary for eliminations .....	11,756,385
Additional costs solely chargeable to the railroads for betterments or facilities other than necessary for eliminations ...	4,061,696
<b>Annual Cost prior to Elimination:</b>	
Maintenance and protection of grade crossings ..	\$903,230
Average annual cost for accidents at grade crossings, based on five-year period prior to elimination .....	176,404
Total annual cost .....	1,079,634
<b>Annual Cost after Elimination:</b>	
Maintenance and renewal of portion of structures maintained by railroads .....	667,553
Additional taxes imposed against railroads on account of elimination improvements .....	422,188
Total annual cost .....	1,089,741
Net Excess Annual Deficit After Elimination, over and above cost prior to Elimination .....	10,107

Since the annual amount of net savings results in a deficit, says the memorandum, "there is no justification as a business proposition for the railroads to contribute any portion of the cost of elimination work."

Pursuing the financial phase of the subject still further, the memorandum asserts that heavy assessments on the



railroads for grade crossing elimination "serve further to aggravate their already weak financial condition," and demonstrates this point with a table comparing railroad net income with railroad financial obligations resulting from grade eliminations. This table gives the net earnings of Class I railroads operating in the State of New York, for the years 1927-1937, inclusive; the net earnings attributable to the State of New York, which were obtained by multiplying the total net earnings of the systems involved by the ratio of their mileage within the state to their total mileage; and the financial obligations incurred by the railroads to pay their share (50 per cent) of the cost of eliminations. The table follows:

Year	Railroad net income (entire systems)	Apportionment of railroad net income to N. Y. State on mileage basis	Railroad financial obligations resulting from New York eliminations
1927	\$205,417,000	\$39,297,000	\$623,000
1928	252,005,000	49,237,000	2,115,000
1929	291,857,000	57,168,000	1,333,000
1930	174,157,000	28,828,000	3,590,000
1931	41,645,000	6,816,000	6,115,000
1932	27,408,000	11,192,000	4,878,000
1933	1,462,000	4,634,000	5,313,000
1934	5,759,000	6,676,000	4,773,000
1935	7,726,000	6,426,000	4,798,000
1936	54,674,000	2,725,000	12,275,000
1937	20,103,000	3,784,000	2,923,000

Italics indicate deficit.

The figures in the right-hand column showing the financial obligations incurred by the railroads to pay their share of elimination costs are computed on the basis of work completed in each of the years and are estimated in part. It is significant that in 6 of the 11 years under review the railroads' expenditures for grade crossing eliminations exceeded their net income attributable to the State of New York, and in 3 of these years exceeded their entire net income. It is also pointed out that the railroad's obligations as a result of loans from the state bond issue fund amount to an annual charge of \$1,624,000. If grade crossing work were to proceed under the present division of expense at the same rate as in the last 11 years, this annual charge, says the memorandum, would amount to about \$3,400,000 at the end of 10 years. This figure alone, it further points out, exceeds the estimated total railroad net earnings attributable to New York State for any one of the last six years.

### Other Factors

Other factors are also mentioned as constituting further reasons why the railroads should be relieved of the burden imposed by grade elimination costs. Among these is the fact that the "railroad situation is critical and the financial condition of many companies is precarious." Further, the importance of the railroads to the stability of the national economy is cited and the public is cautioned that "if the railroads are to remain in business, giving employment to hundreds of thousands of people and purchasing millions of dollars worth of essential supplies, they must be permitted to make ends meet."

Summing up the case in behalf of the railroads, the memorandum asserts that "in view of the changed conditions to which we have referred, there can be little doubt that the proportion of the cost of grade separations allocated to the railroads has been fixed without reference to the benefits, if any, received by the railroads."

The memorandum presenting the case of the railroads was prepared under the direction of the Executive committee of the Associated Railroads of New York, of which Richard E. Dougherty, vice-president, New York Central, is chairman.

## Wage-Cut Hearings Concluded

(Continued from page 588)

railroad situation. The railroad crisis is due to a constantly narrowing spread between the income and the outgo of the industry, a spread now so narrow that about one-third of the industry is actually in the hands of the courts, bankrupt, and much of the rest is threatened. This thin margin between revenues and expenses is due, in turn, as the record shows, to the fact that present railroad operating costs are higher than the industry can meet with present conditions of competition, traffic and revenues. And by far the largest item in railroad costs is wages."

The carriers, Mr. Fort went on, "fully appreciate suggestions for cooperative action, including legislation, to relieve some of these conditions which restrict the opportunity of the railroad industry to make a fair living. With some of the ideas suggested we agree. Certainly we hope that a program which will accomplish such a result may be worked out, agreed upon, and put into effect. But no matter how helpful such a program might be in the long run, its working out will take much time. And time now is of the essence in this railroad situation."

As to the effect of a cut upon general business recovery, Mr. Fort cited last year's increases which "did not cause any improvement in business, and there is no more reason to think that decreasing them now will cause a decline."

"The whole country is interested in the purchasing power of the railroad industry as a whole—and that means not only the purchasing power of the men who work on the railroads, but also the purchasing power of those others who might be employed with better business and the purchasing power of the companies themselves when they go out to buy the seventy thousand different sorts of things railroads use. A bankrupt railroad industry can do nothing to aid recovery. But when the railroad industry is prosperous, when all the factors in the industry are in balance, then the purchasing power of the whole industry makes itself felt throughout the whole of the nation. Such a force would be far more potent for national recovery than the effort to keep up for the men now employed a standard of wages higher than is justified, and higher than can be maintained."

"Everybody believes in high wages in this country. The better the wages, the better we should all like it—but if the railroad industry, or any other industry, is to be kept going, wages have got to be kept in balance with the other facts and conditions. If all the factors, including wages, are kept in balance, we shall have a continued rise in the real standard of living in this country, as we have had in the past. But to set wages at some ideal level, without reference to what happens to the rest of the industry, is simply not good sense. It won't work. It will mean, for all of us, not more and more but less and less. That's why we say that the level of railroad wages as a whole, under present conditions, is too high, and should be reduced now."

THE GOVERNMENT OF TASMANIA, AUSTRALIA, according to a recent statement of the premier, contemplates assuming centralized control of all forms of transport in the state. At present each highway vehicle must be licensed and no license is issued for any service competitive with existing highway or railway services, but, while all transportation by common carriers is thus subject to state licensing power, the control is not consolidated in one department. It is the latter which is contemplated for future application.



# Safety Jubilee Held in Chicago

Council favors apportionment of costs of grade crossing separations in proportion to benefits received

**A** RESOLUTION favoring the re-adjustment of state laws relating to the apportionment of the costs of railway grade crossing separations, in line with the recent Supreme Court decision that such costs should be in proportion to the benefits received, was passed by the Public Safety Advisory Committee of the National Safety Council at its silver jubilee congress in Chicago on October 10-14. The resolution was introduced by Thomas H. MacDonald, chief of the U. S. Bureau of Public Roads, in his capacity as a member of the committee. This action was taken by the council in the belief that its endorsement of apportionment according to benefits would encourage those states which insist that the railroads bear a large portion of the expense, to change their policies and thus make possible an expansion of the grade crossing separation program being sponsored by the federal government.

The Steam Railroad Section convened on the afternoons of October 11 and 13, with W. W. Wood, superintendent of safety and welfare of the Baltimore & Ohio, presiding. The program included six addresses which dealt with the past, present and future of the safety movement, and the education and supervision of employees to prevent accidents. A new field for safety work, development of the mental and physical well-being of employees, was outlined by Fred Sargent, president of the Chicago & North Western. His address will appear in a later issue of the *Railway Age*.

## Without Safety 38,000 More Employees Would Have Been Killed

Charles E. Hill, general safety agent of the New York Central, in an address on The Railroads' Part in Our Safety Program, discussed the progress made in safety, emphasizing the fact that future achievements will be measured against the good record of the present. He said in part:

Had organized safety not been inaugurated by the railroads of this country and the record of 1913 continued without either increase or decrease, there would have been, during the succeeding 24 years ending with 1937, approximately 38,000 more employees killed and 960,000 more injured than actually occurred during that time. Visualize what this means—one million railway employees saved from death or serious injury. Surely this great army of railway workers who help to make up the best citizenship of our country, stands as a living monument to organized safety and its aggressive leadership.

The chief problem of the railroads today insofar as accident prevention is concerned lies in their ability to continue the progress in like proportion as that maintained particularly during the past 15 years. Even though railway accidents have been substantially reduced, we must not be unmindful of the fact that this record is in the past, and future achievements will be measured against the record of today. We still are having accidental deaths and injuries to employees in such volume and through such inexcusable causes that they stand as a further challenge to railway managements.

Our remedy lies almost wholly in education and enforcement of rules. Ninety-two per cent of our accidents to employees are due either to the violation of rules or to failure to follow the safe and proper method where rules do not specifically apply. Education must be pursued consistently and along intelligent lines.

Those in charge of supervision have upon their shoulders the responsibility of carrying out these fundamentals, but the degree of success with which they are administered depends almost entirely upon the support given by those in authority. This support must come from the top and filter down through the entire organization.

## Crossing Accidents

During the past five years crossing accidents have resulted in: (1) An average annual toll of 1,676 deaths and 4,533 injuries, or 32 per cent of all deaths and 15 per cent of all injuries growing out of accidents of all kinds through railroad operation; (2) an average of 150 train derailments per year, many of which cause loss of life and all of which result in substantial damage to railroad property.

A ray of hope lies in the fact that crossing accidents have decreased almost constantly since 1928. During the five-year period from 1933 to 1937, inclusive, as compared with the five-year period ending with 1928, the average number of deaths per year decreased from 2,357 to 1,676. The average number of injuries decreased from 6,670 to 4,533.

In contrasting these figures with accidents occurring at points other than railroad highway crossings, we find that during the same two five-year periods the average number of automobile fatalities per year, occurring on the streets and highways, increased from 23,776 to 36,460, or 53.3 per cent. The prevention of crossing accidents being a joint responsibility of the railroads and the public, it therefore becomes the duty of both to carry out their full part of their respective obligations.

## Supervision's Part in Accident Prevention

John E. Long, superintendent of safety of the Delaware & Hudson, in an address on Supervision's Part in Accident Prevention, supported the contention that supervisors are the key men in procuring co-operation among employees. He said in part:

It is generally recognized on all railroads, in fact in all industries, that supervisors are the key men in procuring co-operation among employees, which is necessary, not only for the prevention of accidents, but for general efficiency in operation as well.

The supervisor is responsible for the co-ordination of the work of those under him with the work of those in other departments. Clearly he should under ordinary conditions, possess qualities of leadership and executive ability. He should be able to give instructions in a way that commands not only respect but confidence, goodwill and a willingness to comply. The supervisor should remember that in the eyes of the men under him, he is the company. Men appointed to supervisory positions should

fully realize their responsibilities, not only in quantity and quality production, but also in economical and safe production. They should have the ability to detect unsafe practices and correct them before the accident happens. Just because an operation has been performed many times without accident does not imply that it is a safe method; many accidents are caused by following presumably safe practices which were actually unsafe, but the hazards of which had not been detected.

An accident is really a mistake coming to light, and an injury is the result of an accident. Accidents do not always injure people. Statistics show us that there are about 30 accidents to equipment or material to every one that even slightly injures a human being and that there are about 300 minor injuries on the average to one lost-time injury. Strange things happen—one man may fall 30 feet and escape with a few bruises—another man may slip on a grease spot on the floor or trip over a water hose and fracture an arm or leg, which shows us that after the accident happens, you cannot control the severity of the injury. To prevent injuries we must prevent accidents and the group that practices good continuous safety work the year around, directed at minor accidents that occur with more or less frequency on any railroad, automatically prevents most serious and fatal injuries.

#### **No Safety Rules on D. & H.**

On our railroad we do not have printed safety rules. I have been asked by supervisors from other railroads where safety rules were in effect, "How do you apply discipline for failure to observe safe practices?" The answer obviously is, we don't. However, when I started working for a railroad 36 years ago, one of the first things I learned was that a man was expected to do as he was told and when he refused to do so, he automatically severed his connection with the company. That still holds true, and an employee must carry out the instructions of his superior officer, whether those instructions apply to accident prevention or other things in connection with his work. It is true that in rare instances discipline has been applied by the proper officers, for flagrant violations of safety instructions given by the foreman for the necessary protection of a man doing certain kinds of work. In such instances, discipline was administered, not for failure to comply with safety rules, but for failure to carry out the instructions of his supervisor, or in other words, for insubordination.

#### **Safety and Public Relations**

Col. Robert S. Henry, assistant to the president of the Association of American Railroads, discussed safety as a vital factor in influencing public opinion. He said in part:

The aim of the movement for improved public relations of industry is, first, to have your facts, your conditions right—and then tell the world. That is the essence of so-called "public relations," just as it is the essence of the safety movement.

You are all familiar with the railroad safety record, both as to passengers and as to employees on duty. It is one of the outstanding achievements of an industry which has a great record of progress and achievement. But, like accidents, it didn't "just happen." Accidents are caused, but the railroads have proved that safety can be created. There are inherent risks in sending a thousand, or five thousand, tons hurtling down a track at high speeds; but the combination of safe conditions, safe methods and safe thinking all along the line has achieved a reduction of from two-thirds to three-fourths in the rate of accidents of practically every sort, in the past 15 years. And that has

been accomplished, too, in connection with the great speed-up of freight and passenger services in the same period. Trains have grown longer, heavier and faster, but the rate of accidents has dropped to one-third or one-fourth what it was 15 years ago.

This striking story of progress, however, is neither the beginning nor the end of the safety movement on railroads. Organized efforts of the rail industry as a whole to improve its safety record began 25 years ago. The problem was attacked along the lines of engineering, enforcement and education.

Accidents continue at grade crossings, with distressing frequency, while the fatal and non-fatal accidents to illegal riders on trains and to other trespassers on the railroad right-of-way have shown little diminution. Last year, 1,875 persons were killed and 5,136 injured in grade crossing collisions, while 2,569 trespassers on trains or tracks were killed and 2,629 injured.

#### **Casualties to Youthful Trespassers Decrease**

But even in these distressing figures there is an encouraging sign of progress of the public education which railroads have carried on intensively. In the five years from 1922 to 1926, the number of youths from 14 to 21 years old killed while trespassing on the railroad averaged 289 per year, and the number under 14 averaged 202. In the most recent five-period available, 1932 to 1936, the number of older youths killed averaged 294, but the number of younger children averaged only 136, and there was an even greater decrease in non-fatal accidents among the younger children. The efforts of the Safety Section of the Association of American Railroads, and of the National Safety Council, among school children, seem to be bearing fruit in lives and limbs saved.

Organized effort on an industry-wide, nation-wide basis, to secure a better public understanding and appreciation of the progress and achievements of the railroads is much younger than the safety movement. Individual railroads and territorial groups of roads have presented their particular stories to the people whom they serve, but not until after the organization of the Association of American Railroads in 1934 was there a concerted move on the part of the whole industry to bring the whole people to a fuller realization of what our American railroads really are, what they do, and what they mean to all of us.

Like the safety movement, such an effort works both inside and outside the industry. Within the industry, there is a pride that comes from a more complete knowledge of the job which American railroads do for us every day and how well they do it. Outside the industry, among the public, there is a more general realization that these railroads of ours are essential, as essential as they ever were; that they are enterprising, progressive, competently managed; that they are doing a good job for us and are entitled to the fair and equal chance they need if they are to do a better one.

#### **Engineman Superior to Automobile Driver**

A paper prepared by J. F. Doolan, operating assistant of the New York, New Haven & Hartford, contrasted the training required of a locomotive engineman with the limited experience and responsibility of the driver of an automobile. It read in part:

I make no claim that railroads alone should transport all passengers and freight or that there is no legitimate place for transportation by water, highway and air, but we should expect that these other forms of transportation will scan the pages of railroad experience of more than



100 years and adopt precautions applicable to them. I will endeavor to point out as I go along, practices observed in every-day operation that would not and could not be tolerated in railroad operation.

The locomotive engineer has come to his important position after many years of service as a locomotive fireman, during which he learned of the construction and operation of the locomotive and its airbrakes, became familiar with the physical characteristics of the territory and learned the application of rules governing train operation. He has passed examinations not only upon entering the service but periodically as prescribed for his own physical condition, vision, color perception, hearing and knowledge of the rules and territory. He is not allowed to operate a locomotive in freight and yard service until certified by a road foreman of engines as competent for that grade of service. One year thereafter he may operate local passenger trains and another year of experience is required before he can operate through passenger trains but only when certified for each higher grade of service by a road foreman. He must thoroughly learn new territory and pass an examination upon it before being permitted to operate and is accompanied by a road foreman on his first trips over such route. Summed up, the locomotive engineer after approximately 10 years as a fireman and at least 2 years as a locomotive engineer may operate an express passenger train at a maximum speed of 70 miles per hour, while on a parallel concrete highway, he can be passed by a young person slightly more than 16 years of age with little or no examination or experience, in a fast, powerful automobile, capable of speeds greatly in excess of 70 miles per hour.

### Efficiency of Employees Tested

It is no secret that tests of the efficiency of employees in train and engine service are conducted upon all railroads. In contrast, some states require no examination for a driver's license. How anyone can assume that a person is competent, physically or otherwise, to drive a car without a thorough examination, is not understandable to me.

The examinations of some states consist only in the operation of the automobile over a comparatively short stretch of highway and other states do not regard it necessary to know whether a person has defective vision, is colorblind or physically incapable of operating a motor vehicle.

Too often we fail to be impressed by the close calls we experience. On the railroad, if a signal is disregarded or there is a failure to protect the rear end of a train or a main track switch is left open or a train order is misunderstood, the offence is as great as if an accident actually occurred.

Great emphasis is placed upon engineering, enforcement, education and accident facts and millions of dollars are being spent every year to eliminate curves, crossings and divide highways, but not until the emphasis is placed upon the driver, will we reduce this terrific toll of deaths and injuries.

### Courtesy Begets Safety

G. H. Gibney, superintendent of car service employees of the Pullman Company, outlined the importance of courtesy toward the traveling public and showed how safety of employees and passengers results from its practice. He said in part:

Courtesy and safety have a closer relationship than one realizes. In fact they go hand in hand, as invariably a courteous employee is a natural safety man because by

being courteous, he naturally displays an interest in his passengers. It follows, just as day does night, that Pullman employees, being safety conscious, will be just as deeply concerned about the safety and comfort of our patrons as they will about the host of other little amenities that insure a pleasant and safe journey.

The gospel of safety has encouraged Pullman employees to assist passengers safely on and off cars; brought them to the realization that throwing a heavy step box onto a car platform constituted a hazard; taught them to close vestibule doors before the train starts; to remove baggage from the aisle (a practice that caused us considerable grief in the old days); to place the step ladder for use of passengers ascending to upper berths; and a host of other features too numerous to mention here.

In order to "sell" courtesy and safety, good leadership and supervision are required. The Pullman organization—as far as road service employees are concerned—is entirely different than other industries in that we have numerous scattered groups, with local headquarters in 68 different cities in the U. S., Canada and Mexico.

### District Officers Responsible

The district officers in charge of these local offices are responsible for the conduct of more than 1,800 conductors and 8,500 porters, attendants, and maids, operating in cars on the various railroads. Good leadership, therefore, is very necessary as the Pullman conductor is on his own. Being in charge of the Pullman cars, he has supervision over the porters on his train. Although he patrols the train periodically, the porter is not under his constant supervision. The leaders—our district representatives—must be capable of instilling in the conductors and porters enthusiasm and pride in their respective groups to the extent that these employees will handle their individual duties to the credit of their group and the leader of their district.

This requires constant coaching as the average employee away from his home station is susceptible to temptation and is subject to the influence of his associates and often passengers. It is important, therefore, that we develop in these men the realization of what might happen, not only to our passengers, but to the employees themselves if safety rules are violated. Of course, it is axiomatic that the passenger is entitled to courtesy. And what is more important than his safety? Our men fully realize that failure to comply with regulations reflects discredit on the district representative as it indicates failure on the leader's part to train and school them and to build in his local group enthusiasm and personal pride so they will take interest in their work.

It is necessary to preach courtesy and safety continually. We hold meetings every three months for road service employees, spread over three to seven days, in the 68 cities referred to, which enables all employees to attend at least one meeting. These gatherings last approximately one hour and fifteen minutes. They are snappy and full of enthusiasm. In addition to courtesy and safety, service features are stressed. District representatives are in charge of all meetings, with the local safety supervisor assisting.

THE CZECHOSLOVAKIAN STATE RAILWAYS are taking steps to shape competitive railway rates on the so-called "agreed charges" basis in announcing recently the institution of reduced freight rates for cereals and milk products at key loading stations, such rates to apply only to those shippers who pledge themselves not to ship any of their milk products and grain by motor trucks and who will receive coal by rail exclusively.

# The Transportation "Container"\*

A discussion of some problems presented by modern trends in railway passenger and freight cars

By Walter E. Dunham

General Superintendent Car Department, Chicago & North Western

**M**ANY "authorities" outside of the transportation groups can and do frequently suggest various changes in equipment construction and arrangement that at times seem fantastic and crude. We must not overlook these suggestions, but analyze them and thrash out the chaff, keeping the good material for our guidance in future construction.

For example, I quote a recent statement from one of our important newspapers in speaking of passenger trains: "Aerodynamics dictated the design of the freakish trains that are being exhibited today, but they will become the standard trains of tomorrow, because with weight cut in half and wind resistance reduced to a minimum, operating costs will be proportionately reduced. Not only will they be able to attain greater speeds than are possible with present day equipment, but they will be able to start and stop with a minimum of reduction in average velocity."

What a glowing picture and how easily quoted! The words simply roll out—"weight cut in half and operating costs cut in half." Can we call this propaganda, or is there some other word more suitable? The actual result is that a longing is set up on the part of the traveling public for something different, something new, and, therefore, it is necessary that the equipment supplied the passengers for their transportation be changed, and frequently increased comfort and ease provided. The "rub" is to supply all these features plus increased speed at, shall we say, reduced cost as the quotation implies, or at no increased cost? I am quite sure that your response will be the same as mine, "At no increased cost," and that with our fingers crossed.

As usual, the problem is not purely a mechanical one, traffic density being the basic ruling factor. It is always the case that when the demand is sufficient to make a reasonable return on the investment, mechanical designers and builders are ready with the machinery, the equipment or the tools to do the job. I remember my early experiences with the Otto internal combustion engine, a single cylinder, with the compressed charge of gas ignited by a candle flame. All the elements of the present automobile engine were there waiting for the time to be adapted to the horseless carriage as well as the provision of suitable roadways for its use.

So it has been with the materials used in the construction of equipment for handling passengers. The original cars of our comparatively modern railway, of well-developed and economical all-wood construction, changed to a combination of wood and steel when maintenance costs and other similar influencing factors required. Then came the all-steel design, and then after a partial use of aluminum, the use of all-aluminum construction. Now

there is also the quite general use of high-tensile steels, particularly for full and semi-streamlined equipment. What the next step, if any, will be is hard even to estimate. The necessary development of aluminum alloys and high-tensile steels of varying fabrication qualities during the past ten years has been rapid but sure, and it may be reasonable to assume that their general use will continue for at least a period equal to the span of years of the ordinary steel construction, particularly in view of the fact that the shell of the passenger "container" so constructed is reduced in weight in some instances to nearly 50 per cent of the former steel cars.

## Service Life of the New Materials Is Still Uncertain

What the actual life will be for these newer light-weight materials is still an open question. None of them has been in use a sufficient length of time to draw a definite conclusion. As an indication of the life of aluminum sheets used over steel framing, attention may be called to a lot of passenger cars built in 1927, and thus over ten years in service to date. The sheets are still in perfect condition and show no sign of deterioration. Common salt, and a brine however mild, does destroy the aluminum progressively, but proper protection in construction can readily avoid that condition. The stainless steels and the high-tensile steels, as now used, have been available for only a few years, approximately six or seven. The service life of all these light-weight materials will of necessity be watched very carefully and with extreme interest by the engineering profession.

Together with the several materials goes the various methods of securing the different structural and covering parts in position. Welding in its various forms, as well as riveting, is practiced by the different designers of equipment, in some cases the finished car having a combination of welding and riveting in its construction; in others all riveting; and in others all welding. As at present practiced, the use of the various special materials of construction with their special methods of assembling all have merit. The selection of the one or the other is, therefore, a matter for special study in each case. It is to be observed, however, that the art of assembling is still progressing, particularly as the research and designing engineer observes conditions that he believes can and should be improved.

But that is not the whole story about the anticipated reduction in weight. In addition to the necessary operating equipment, such as brakes, we have the extra features of air-conditioning apparatus, larger and heavier electric equipment to supply current for lights, radios, etc., the sum total of the weight of the modern car complete becoming approximately 75 per cent of that of the former car. In other words, the actual reduction in weight of the car body has permitted the addition of the

\* Abstract of a paper presented at a dinner meeting of the Society of Automotive Engineers, Chicago Section, held Tuesday evening, October 4, at the Stevens Hotel, Chicago. Members of the Western Railway Club were invited to this meeting which was also largely attended by officers and members of the S. A. E. Truck, Bus and Railcar Section.



many attractive items of comfort and amusement, with an actual net reduction in total weight.

### Practical Considerations Limit Aerodynamic Design

Referring again to the quotation that "Aerodynamics dictated the design of the freakish trains that are being exhibited today," that dictation is of a very mild nature. A more nearly correct statement would be that a trend is indicated. True aerodynamic dictation by reduction of cross section, full shrouding and full tailing construction has not been acceptable to the public. It also has serious operating objections. Instead of reducing the cross section, particularly the internal clearances, there has been with each new streamlined train, a gradual return to the former generally-accepted interior horizontal and even vertical clearances. By maintaining the former extreme outer widths and taking advantage of possible thinner side construction, the interior width has been even increased. The public also demands the clear rear-end view, especially so on the more important trains. In other words, the full dictates of aerodynamic engineering has not been found to be practical for railway train construction.

Complete shrouding underneath has not worked out satisfactorily from several angles. Although the covering of all the projecting auxiliary parts under the car would, at first glance, seem to be elemental and correct, the resulting construction is in some instances open to considerable practical questioning. Where roadbed conditions involve the lifting of the ballast on account of the vacuum action under the car, caused apparently by the broken longitudinal bottom line of the car body as a result of the height necessarily maintained above the trucks, a simple skirting on the sides of the car seems to give the best results to date. While in many cases of the newest construction this skirting is used, it is in many other cases omitted entirely. This open construction also has distinct advantages in the better opportunity to inspect the auxiliary apparatus necessarily carried under the car body and also permits greater economy in the time required to make repairs as needed.

The effort to have the entire train fully streamlined from front to rear by articulation and closure or covering of the connections between units also has not been entirely satisfactory, from either maintenance or operating standpoints. In the former case, special terminal or shop handling of the whole train may be involved because of a simple maintenance requirement on one unit, and in the latter the capacity to increase or decrease the number of cars in the train has its traffic and operating difficulties. The result has been that in later construction the use of articulation has been restricted to a maximum of three units, usually two, and then only where the units must and can be operated together, such as a kitchen-diner combination or even a lounge added.

In some instances no closure or covering of the connection between the separate operating units is now provided. With the outline of the unit continuing sharply to the ends without rounding off at the sides or on the top, as was the former general practice, and with a minimum gap between units, the use of the closure has been found to be of little real value in reduction of air resistance, particularly at the present practical maximum speeds for railway operation.

### Head-End Auxiliary Power Plants for Unit Trains

When the cars of one of the streamlined trains are to be kept solely in that assignment, and the set-up of the train is not to be altered, the very economical head-end

auxiliary power unit has been used. This consists of an independently-driven generator to supply electric current for lighting the entire train, for running the air-conditioning machinery, and similar uses, even for heating the cars, particularly the rear cars of a long train when the train is not handled by a steam locomotive and an auxiliary boiler is the only source of steam for heating purposes. On the other hand, when the operating conditions require the use of extra equipment in the train, and at times even the use of former standard equipment, the several cars in the train are self-contained as to this electric power, the same as has been generally standard construction, axle-driven generators and the usual batteries being installed, or in some instances independently-driven generators and refrigerating units being used to relieve the traction power unit load.

### Interior Appointments and Conveniences Have Wide Appeal

So much for the general construction of the passenger container. As to the arranging and equipping of the interior, that is another story. All the comforts of home, and in many instances much more, are provided. The ordinary fixed type of coach seat is being discontinued and the individually adjustable reclining seat of the duplex type is returning to its own, with the swiveling feature added in some instances, so that the passenger may obtain a direct side view from the car if desired. The electric water cooler gives an opportunity to provide also cooling compartments for such uses as infants special feeding formulas, etc., thus making traveling especially with small children less of a "nightmare" for mothers than it used to be.

Women are receiving equal, if not more "rights" than men in the matter of comfort facilities in coaches, large and commodious quarters being provided with full privacy as desired. This, with the special attendants assigned, is a marked improvement over former conditions and is here to stay.

With the furnishing of such comfortable coach service for long distance traveling, including overnight trips, there has developed the use of amusement or lounge cars for coach passengers. Comfortable movable chairs form seat sections for card games, and various features of that sort are typical of the extra service provided for the so-called coach passenger. That the service is appreciated by these patrons is indicated by the popularity of the trains on which these special cars are a part of the regular equipment.

### Satisfactory Air-Conditioning Presents Real Difficulties

One of the most noticeable problems of the modern passenger car is air conditioning. The problem is to furnish clean fresh air in the quantity necessary for comfort of the passenger, cooling it during the hot seasons and warming it during the cold seasons. Railway air conditioning has gone through the same experience as air conditioning of offices, theatres, stores and similar buildings in the matter of the temperature regulation to suit the public served and avoid the originally registered complaints of being too cold, or too hot, or too drafty, or any one of the many personal ideas or feelings of the passenger. We have been worse off than the weather man in this because with his product there is no alternative for the individual other than to make the best of what he gets. Our situation is the reverse in that we must deliver a full 100 per cent satisfactory inside weather, even though, during certain times in the spring and fall, the apparatus in a given car while running in a single trip between

Chicago and Pacific Coast points over the prairies of Nebraska, or while on the western deserts has to cool the air, and while passing over the high elevation points of the Rocky Mountains has to heat the air.

With the generous co-operation of the railroads and the designers and builders of these various types of air-conditioning apparatus, with a better understanding on the part of those charged to operate the apparatus, and with a long suffering public that has appreciated the development stage of this desirable adjunct to traveling, air-conditioning requirements have been reduced to a satisfactory minimum, with all the expensive frills and non-essentials eliminated.

Even then it can readily be appreciated that the requirements on a line operating in a north and south direction, say from Louisiana to Chicago, would be very different from that of either a line operating between Chicago and New York, or a line across the Southern States. The former would have wide variation in temperature to contend with at all seasons of the year, while in the latter cases the temperatures and conditions met on any one trip would be reasonably similar. The result has been and probably will always be that, the same as for buildings, the capacities, as well as the type of the apparatus installed by the individual railway will be adapted to its particular local service situations.

### Interior Decoration and Finish

The interior decoration and finish of the modern passenger train car is a far cry from the drab monotonous effects of the cars of our fathers, or even the ornate scrolls and plush of our own early years. The artist has now combined practical construction with his modern ideas of color and form. Some of the effects are startling, to say the least, just the same as many of the remodeled or new store fronts in most cities are startling to the effect of drawing attention and trade. Just that result is being obtained with our cars. The decorative effect makes an impression to the extent that it is talked about, and "talking about" is advertising. Possibly another 50 years will make these present decorations look ordinary and simple. In any event they are modern and fully up-to-date in every sense of the word. There is no similarity in the finish of the several types of cars, such as diners, lounge, parlor, etc. In fact, there is frequently no similarity in the cars of any one type. Variety is apparently the watch word and variety is the result.

In no part of the passenger service given by the railways has there been any greater development than in the offerings to suit the overnight patron. In addition to the improvement in forming and upholstering the standard Pullman section and berth, the use of comfortable rubber-bodied mattresses and other attractive features, there is hardly an important passenger train but has available for the patron's choosing, the single bedroom in the single or the double-decked car, the double bedroom in the single-decked car, the ordinary stateroom or compartment, the deluxe stateroom with the fold-up berths providing almost a parlor room when the berths are not made up, and almost any combination of most of these facilities that can be thrown together for special groups.

### Freight Equipment Designed for General Interchange Service

While in the field of passenger handling, the individual railways, or group of railways, are influenced mostly by local conditions as to the equipment and the special features supplied, in the field of freight handling they are confronted not only with their own local conditions but

also by conditions in any part of the United States, Canada or Mexico, as all freight equipment is interchanged between railways anywhere and for any destination in that entire area. The variety of commodities to be handled in any one type of car, say box, can be appreciated by a moment's thought. From brick, and even coal in some areas, to print paper; grain products in bags or cartons hot or cold in others; lumber for interior finish in others; knock down butter firkins in others; grain in bulk, including the elusive flaxseed in others, etc., the car must be constructed and maintained to deliver the load in first-class condition to avoid losses.

On the other hand, loads of lead and similar metal billets require a car of maximum load-carrying capacity, but very small cubic capacity, while loads of certain cartoned products require a minimum load-carrying capacity and a large cubic capacity. In view of the evident fact that the car with large cubic capacity will answer for a load of concentrated weight, while the car of less cubic capacity will not be suitable for a load of light unit weight commodities, the general trend at the present time is to build and provide cars of as large cubic capacity as possible, the controlling factors, of course, being local switch terminal clearances and overhead clearance on the line.

For general interchange service a suggested standard box car has been designed by the Mechanical Division of the Association of American Railroads that is receiving favorable consideration. In this design the clearances required generally in the entire area have been given due consideration.

The generally-accepted type of framing, including the end construction, for the box car and all house cars, such as refrigerator, stock, automobile, furniture, etc., is steel. Few, if any, of these cars are now being built that do not use the light-weight alloy steels in most, if not all, framing parts. The exterior covering, that is the sheathing when used and the roof, are often also of steel, the thickness depending upon whether the design of the car contemplates the sheathing being a load-carrying member or not. On the other hand in a large section of the country the shippers still indicate a preference for the single-sheathed car, that is, one with a thick wood single lining and with the car framing exposed on the outside. This preference is particularly noticeable in the area where grain and grain products hot from the mill, or where interior finish lumber, slightly green, is handled. Such loadings, particularly in the cooler season, cause heavy condensation or sweating to form on the steel parts of the car exposed on the inside, with the resulting damage to the lading by the drip resulting. In some cases the steel roofs are being covered to prevent this condensation and drip by using some composition surfacing or by installing a framing of wood.

For weather protection, the car with the sheet steel outside covering or sheathing is the most desirable. The inner side walls or lining of the car are of wood, usually tongue-and-groove boards being used. When the steel ends are lined the same construction is followed. Plywood is beginning to be used for these lining purposes to a considerable extent. For the handling of many commodities, the use of plywood appears to have some advantages. Wood floors are universal, the blocking necessary in handling most commodities requiring this.

The welding of the structural steel members in position and welding of steel castings in place is in many instances replacing riveting. Also the welding instead of riveting of the joints of steel sheathing and of steel roofs is being practiced, all to the extent that fully-welded steel box cars are under actual service demonstration at the present time. On such equipment, it is to be antic-



ipated that for ordinary maintenance purposes, riveting can be resorted to whenever available apparatus at the point of repair will not permit welding being done.

An off-shoot from the box car is the automobile car, which is simply a box car of large cubic capacity with staggered double side doors so arranged that an automobile pleasure car or small truck can be run into the railway car from a track side platform. A second type of automobile car is one in which one end of the car consists of a full opening door. Such a car is provided for handling large trucks, special fire department apparatus and similar loads.

Where the density of a certain traffic or the frequency with which a car will be loaded justifies it, box, automobile or similar cars are at times equipped with special loading racks to handle such traffic. The handling of engine blocks, feeders and other such parts as are used in the assembling of automobiles are examples. Adjustable racks for carrying completed automobiles themselves are quite generally provided so as to load four automobiles in each car.

Flat and such open top cars as gondolas, etc., follow the general construction indicated for house cars, with the additional feature that the fully cast steel unit underframing is receiving considerable attention. For such cars, as well as hoppers, where the corroding effect of the lading, or drippings from same, is extremely serious, the cast-steel frame has a particular advantage in not being so subject to rapid corrosion as rolled steel.

### New Alloy Steels in Hopper Cars

For hopper cars in general service, such as the handling of coal, sand, gravel, etc., the use of copper-bearing steel for all sheets and sections has brought about some extension of the service life of such parts against corrosion. The use of high-tensile alloy steels is now taking the place of copper bearing steels in this search for the material and construction having the greatest life in this particularly hard service and in that way obtaining the ultimate lowest maintenance expense.

When we casually mention gondolas, I wonder how many realize the extent to which that type of car is subdivided. Just to mention a few, let me list the plain ordinary gondola of the simple box type with solid ends, sides and floor; then comes the car with a set of drop doors covering the entire floor; next the car with a few drop doors in the floor; then the car with the ends that drop or are removable; then the car with the sides that swing out; then the especially long car to handle steel mill products, etc., or even a car with any combination of these several features.

Again as to the simple hopper car for handling bulk commodities, that is one with an open top, and with the floor sloping so that when the hopper doors at the bottom are opened the commodity will automatically unload itself. Many are now being supplied with a weather-proof roof, including weatherproof loading doors, and equipped with hopper devices that are practically waterproof, all for handling such finely ground commodities as bulk cement, powdered coal, etc.

With these general comments it is probably clear to all that for both passenger handling and for freight movement, the car is being provided by the railways that the patronage requires and the amount of that patronage justifies. The variety of details that must be covered is extensive in both the wide field of design and the slightly narrower field of maintenance. You may be assured that the designer and maintainer of that equipment is confronted with plenty of problems which have a vital bearing on safe and efficient railway operation.

## M. P. Develops Vacation Business

**W**HEN the Osage river, in central Missouri, was dammed to form the Lake of the Ozarks, the Missouri Pacific aided materially in the promotion of this region as a summer resort section. The vacation area centers at Bagnell, Mo., on a branch line of the M. P., 44 miles from Jefferson City. Previously, the Missouri Pacific had supplanted passenger trains on this branch with bus service of its subsidiary, the M. P. Transportation Company, along U. S. highway 54, and this service had been extended through to Springfield, thus affording the only convenient means of reaching the state capital from the southwestern Missouri metropolis.

Last summer, with the increasing popularity of the Lake of the Ozarks region as a resort center, the M. P. put in special rates and convenient rail-highway co-ordinated service between St. Louis, Kansas City and Bagnell. Week-end round trip tickets between St. Louis and Bagnell were sold at \$4.65, and from Kansas City at \$6.05. Round-trip rail-bus tickets with a 30-day return limit were sold daily at \$6.25 from St. Louis and \$7.65 from Kansas City. Three combination rail-bus schedules were made available in each direction daily between both St. Louis and Kansas City and the Lake of the Ozarks, by train to Jefferson City and bus beyond in each case, and they were all extremely well patronized. The business was secured through advertising and by special campaigns carried out by the Booster clubs of M. P. employees, which featured this service in their solicitation among their friends.

\* \* \*



Photo by J. A. V. Hyatt

# NEWS

## A. A. R. Tests Run At 102 M. P. H.

16-car, 1,000-ton train run on three railroads develops new data for locomotive design

In the high-speed steam passenger locomotive tests with a 1,000-ton 16-car train, conducted by the Association of American Railroads over the lines of the Pennsylvania, the Chicago & North Western and the Union Pacific, as announced in a news item in the *Railway Age* of October 15, speeds up to 102 miles an hour were attained, and a large amount of information not heretofore available was secured regarding locomotive performance and train resistance in the upper-speed ranges. These tests were conducted for the A. A. R. Committee on Further Development of the Reciprocating Steam Locomotive, of which D. S. Ellis, chief mechanical officer, Chesapeake & Ohio, is chairman, details of the tests being under the direct supervision of W. I. Cantley, vice-chairman of the committee and mechanical engineer of the A. A. R. Mechanical division.

Test runs were made during the week of October 9, both east and west-bound, on the lines of the Pennsylvania between Ft. Wayne, Ind., and Chicago; on the Chicago & North Western between Chicago and Omaha, Neb., and on the Union Pacific between Omaha, Neb., and Grand Island. On the Pennsylvania, two Class K-4-S locomotives of the 4-6-2 type, built about 1924, were used, these locomotives having 44,000-lb. rated tractive force, 205-lb. boiler pressure, and 80-in. driving wheels. On the westbound run, a maximum speed of 90 miles an hour was reached and all necessary test data recorded. When the train reached a point about 5 miles west of Warsaw, Ind., and was proceeding at a speed of about 87 miles an hour, a part of the indicator drive mechanism on the right side of the locomotive broke and dropped into the valve motion, causing the union link to fail, with resultant blowing out of the cylinder heads, both front and back, on the right side. The train came to a stop without other damage to the locomotive or track and, after a slight delay, it proceeded with another locomotive to Chicago. On the eastbound run, made the latter part of the same week, this test train attained a maximum speed of 91 miles an hour, on a slightly descending grade without unusual incident.

The test runs on the Chicago & North Western were made with a new streamlined Class E-4 locomotive of the 4-6-4 type, having 55,000-lb. rated tractive force,

## P. R. R. Shopmen Reject A. F. of L. Unions

Shopmen on the Pennsylvania voted to reject seven craft unions of the American Federation of Labor and designated the Brotherhood of Railroad Shop Crafts of America, Pennsylvania System as their collective bargaining agent, according to an announcement by the National Mediation Board. The designated union, which is unaffiliated with either the A. F. of L. or the C. I. O., won by a vote of 17,003 to 10,934 when votes from 13 states and the District of Columbia were counted. The balloting also revealed that the accepted union had won the election in every craft.

300-lb. boiler pressure, and 84-in. driving wheels. The locomotive on the westbound trip, equipped with 12-in. piston valves, reached a maximum speed of 95 miles an hour. The locomotive on the eastbound trip, with 14-in. valves, attained a maximum speed of 89½ miles an hour, both of these speeds being made on slightly descending grades.

On the Union Pacific tests, a modern 4-8-4 type steam locomotive about one year old was used, having a rated tractive force of 63,000 lb., a boiler pressure of 300-lb., and 77-in. driving wheels. The maximum speed attained on the westbound trip to Grand Island was 89 miles an hour, and eastbound on a slightly descending grade 102 miles an hour.

The objective in these tests, conducted with a single train of 16 Pennsylvania cars having known scale weights, was not primarily to compare the three individual types of locomotives tested, but rather to secure actual data regarding general locomotive characteristics essential in meeting most satisfactorily the requirements of modern operating conditions. As soon as the test data are analyzed and studied a formal test report will be released for the information of individual railroads as well as the locomotive builders.

## South Manchuria Head to Quit

Yosuke Matsuoka, president of the South Manchuria Railway since August, 1935, has indicated his desire to resign from the post, subject to the approval of army leaders. He became a director of the road in 1921 and a vice-president in 1926. He has also been actively engaged in high positions with the Japanese government, having been a cabinet adviser concurrently with his railroad presidency.

## Farm Pay Down, Rail Wages Up

Railways cannot give farmers rates of 1916, with wages 75 per cent higher

"The present average wholesale price of all farm products is now 31 per cent lower than in 1926, while the average hourly wage of railway employees is 19 per cent higher," Samuel O. Dunn, chairman of the Simmons-Boardman Publishing Corporation and editor of *Railway Age*, told the Agricultural Club of the Chicago Agricultural Association last Monday. "The present average wholesale price of farm products is 18 per cent lower than in 1916," he continued, "while the present hourly wage of railway employees is 175 per cent higher. How can the farmer expect the railways to give him rates proportionate to the prices of his products when there have developed such very great disparities between the prices of his products and the wages paid railway employees for transporting them? The average revenue now being received by the railways for hauling a ton of freight one mile is less than in 1926, but about 40 per cent higher than in 1916. Is it any wonder then, that the entire industry is threatened with bankruptcy?"

"The outcome of the present railway wage controversy, regarding which hearings are being held by an emergency fact-finding board appointed by President Roosevelt, probably will determine whether at least three-fourths of the railroad industry will become bankrupt and government ownership and management will become necessary. The industry as a whole is being run at a heavy loss which will continue as long as present business conditions exist unless wages are reduced. Only the government, with its ability to pay losses from taxes, can long operate a great industry at a loss.

"The farmer's interest in the railroads is fourfold.

"First, he must have good and adequate transportation for his products. The railways now have 10,000 less miles of line, 13,000 fewer locomotives and 600,000 fewer freight cars than nine years ago. High operating expenses, making it impossible to continue operating much mileage, are causing thousands of miles of branch lines to be torn up each year; and in almost every instance the farmers suffer most from the loss of railroad service.

"Second, the farmer wants freight rates that are reasonable in proportion to the prices he can get for his products. In

(Continued on page 609)



## Ma Perkins Says Tsk! Tsk! to R.R.s

Labor secretary thinks carriers are backward, but she waves forefinger at labor too

Secretary of Labor Perkins made a speech on October 15 at Columbus, Ohio, at a celebration of the seventieth anniversary of the Order of Railway Conductors, in which she gave the railroads a real good dressing down for their "backwardness" in the "development of transportation in its larger aspect." She also made a guarded admonitory statement to the railway unions, when she said that a solution of railway difficulties would provide more jobs.

She even went so far as to include "fuller employment" as a part of America's "basic economic problem"—a statement doubtless somewhat shocking to unionists whose basic policy has been to restrict employment in the interest of higher earnings for those left at work.

After praising the railroad brotherhoods for their "many constructive accomplishments in the interest of labor and the public over the span of many years," Secretary Perkins referred to the present economic status of the railroads and mentioned slight employment gains in the last three months and an increase in carloadings. She then went on as follows:

"The competitive conditions brought about by the truck, bus, private automobile, airplane, pipe line, electric transmission line and waterways are here to stay and they make a formidable array, but there is no reason why they should frighten management. Movement by train on steel rails over a low grade line still has the call on a vast amount of traffic, and most of the other transportation agencies can function as auxiliaries and allies as well as in the role of enemies.

"Those who have studied closely the problems of the railroads and their workers believe that if the roads improve their service in competition with other forms of transportation they will work their way out of their difficulties as economic conditions improve. They have been backward in the development of transportation in its larger aspect it would seem and are much as they were thirty years ago except that cars and locomotives have been improved and traffic speeded up.

"However there has been no development comparable with that in automobiles for instance. Experiments are now being made, as you know, with stream-lined trains capable of great speed and equipped with what are virtually automobile engines. Many believe that this step will mark such an improvement in service that the railroads will be able to recapture lost passenger traffic.

"All of us whose primary interest is in the welfare of people who work for a living are hoping for an integrated solution of the transportation problem which will provide more employment for more workers at fair wages. It is important that employees as a group should not lose sight of their group

interest which, if handled on a far sighted basis, has its roots in fuller employment for a larger number of men.

"Thus, those of us who are friends of labor regard increasing production, wider distribution of goods and fuller employment as the basic American economic problem. Without an increased volume of activity permanently increased employment is hampered. More goods to be sold and services to be rendered provide a solid basis for a healthy and permanent increase in regular private employment."

### F. & T. E. A. Proceedings— A Correction

In that part of the report of the Committee on Utilization of Locomotives on page 515 of the October 8 issue, the distances between Chicago and La Junta, Colo., and La Junta and Los Angeles, Calif., are given as 900 miles and 1,200 miles, respectively. The correct mileages are 992 and 1,235. The tenders on the locomotives operating in this service carry 20,000 gallons of water (not 27,000).

### L. N. E. R. Chairman Resigns

William Whitelaw, chairman of the London & North Eastern (Great Britain) since 1923 has formally resigned his post and his membership on the board of the road. Born in 1868, Mr. Whitelaw joined the board of the Highland railway in 1898 and in 1900 became chairman of the board. In 1912 he became chairman of the North British railway and in 1923, on the formation of the London & North Eastern, of which the North British became an integral part, he became chairman of the new system.

### Montreal-Vancouver Air Express Service Opened

The Canadian National, in conjunction with Trans-Canada Air Lines, inaugurated a daily air express service in both directions between Montreal, Que., and Vancouver, B. C., when the first scheduled mail and express plane departed from St. Hubert air port, Montreal, at 7 a.m., October 17, for the western run, carrying a cargo which included letters and presents from Montreal's mayor to other community chief's along the route. For the present, a leisurely schedule will be flown. The elapsed time of the westbound trip will be 25 hours and 20 min. and eastbound 19 hours and 3 min.

### Railroad Historians Hear N. Y. C. Protection Officer

A description of railroad police methods, with special emphasis on such modern equipment as the automobile and the radio and the prevention of car burglaries, was presented by F. J. Love, superintendent of property protection, New York Central, before the Railway & Locomotive Historical Society, New York chapter, on October 14. The speaker attributed much of the success of reducing freight robberies 96 per cent in recent years, as compared with the year 1921, to special training of protection men and the process of "localizing" robberies in particular locations from which concentrated investigating activities might proceed.

## I. C. C. Approves Plan for W. Pac.

Final draft would wipe out all the claims of road's Common Stockholders

A final plan of reorganization for the Western Pacific which would wipe out all claims of the present stockholders was promulgated by the Interstate Commerce Commission on October 17. The final plan which comes over a year after the Finance Bureau's proposed plan which was reviewed in the *Railway Age* for August 7, 1937, page 171, provides for a total capitalization of \$93,726,517, total fixed charges of \$511,001, and a total fixed and contingent interest charge, plus the payment into the capital fund and sinking fund, of \$1,898,223. The plan also provides for the payment of preferred dividends in the amount of \$1,478,703, making total fixed and contingent charges of \$3,376,926.

The commission's final plan, which would become effective as of July 1, 1938, makes the following provisions:

1. The assumption by the reorganized company of the outstanding equipment trusts, Baldwin lease and Pullman contract of the debtor and its trustees.
2. The immediate issue by the reorganized company of \$10,000,000 or such additional amount as may be necessary in the event a loan of \$10,000,000 must be secured, of 50 year first mortgage four per cent bonds, \$19,716,040 of 75 year income mortgage four per cent bonds, \$29,574,060 of five per cent preferred stock, and 313,703 shares of no-par value common stock.
3. The sale of \$10,000,000 of new first mortgage bonds at par or the borrowing of \$10,000,000 through the pledge of new first mortgage bonds.
4. The creation and maintenance of a capital fund of not to exceed \$500,000 in any one year, or \$1,000,000 at any time to be accumulated out of available net income.
5. The immediate creation and maintenance of a one-half of one per cent sinking fund for the retirement of the new income bonds out of available net income remaining after payments into the capital fund, and payment of interest on the new income bonds; and the creation out of available net income remaining after payment of fixed charges of a similar fund for the retirement of first mortgage bonds when and if \$20,000,000 thereof are issued.
6. The holders of the debtor's existing first mortgage bonds, with March 1, 1934, and subsequent coupons, to receive in exchange for each \$1,000 of such bonds and accrued and unpaid interest thereon approximately \$400 of new income four per cent bonds, \$600 of new five per cent preferred stock, and 3.13 shares of new common stock, and subject to the terms and conditions as provided, the contingent rights to subscribe for new first mortgage bonds to be issued to provide new money.
7. The Reconstruction Finance Corpora-

tion, the Railroad Credit Corporation, and the A. C. James Company, holders of the debtor's notes which are secured by the pledge of the debtor's general mortgage bonds, to receive in exchange therefor and for accrued unpaid interest thereon, 159,462 shares of new no-par value common stock, the stock to be distributed among them on the basis as described, together with warrants to subscribe for the purchase of the new first mortgage bonds.

8. The formation of a committee with such power as may be necessary to carry out the plan, and to determine, subject to the approval of the court, the form and provisions of the indentures, bonds, stock certificates, and other instruments, in connection with the carrying out of the plan; the committee to consist of three members, one to be named by the committee representing first mortgage bondholders, one by the RFC, Railroad Credit Corporation, and A. C. James Company, as a group, and the remaining member by the purchasers of the new first mortgage bonds to be issued to provide the new money in the reorganization, or by the party or parties advancing the money necessary to retire the trustees' certificates.

9. The obligations of the debtor (other than to the Western Pacific Railroad Corporation and the Western Realty Company, unsecured claimants) not specifically herein provided for shall be paid by the debtor or the reorganized company or assumed by the reorganized company.

10. The Western Pacific Railroad Corporation and the Western Realty Company, unsecured claimants, to receive no securities or cash in satisfaction of their claims, since such claims are found to be without value.

11. The present holders of the debtor's capital stock not to participate in the plan, since the present stock of the debtor is found to be without value.

12. The plan to be accepted and carried out in accordance with its terms and the provisions of section 77 of the Bankruptcy Act, under the direction of the court.

The plan also will provide that existing mortgages on the debtor's properties be released and canceled, and all funds on deposit with the debtor's mortgage trustees representing sums paid from time to time to the trustees for the release of properties, sale of scrap, and otherwise, and all collateral pledged under the mortgages, be surrendered to the reorganized company free from existing mortgage liens, after deductions of any amounts which the court may find should be deducted under the provisions of the mortgages consistent with the plan of reorganization.

The plan should also provide further, the commission said, that all collateral pledged by the debtor as security for its notes to the Reconstruction Finance Corporation, Railroad Credit Corporation, and A. C. James Company shall be surrendered to the reorganized company. The Railroad Credit Corporation also should release and surrender to the reorganized company its rights and interests in the debtor's distributive shares under the marshaling and distributing plan, 1931, from and after the effective date of the plan, and any proceeds from such shares applied by the

Railroad Credit Corporation to the payment of principal and/or interest of and upon the obligations of the debtor after the effective date of the plan, unless such application shall have been made by authority of the court of competent jurisdiction, shall be turned over to the reorganized company.

Commissioner Eastman concurred in part, but objected to the majority's findings in two respects. Firstly, he did not favor the provision for the creation and maintenance of a "so-called capital fund," and secondly, he did not approve of the provision that additional first mortgage bonds "shall not be issued on the basis of additional property of any kind or additions and betterments, unless the income of the reorganized company available for fixed charges in a period of 12 consecutive months within the 18 calendar months immediately preceding the date of authentication and delivery of the bonds equals or exceeds 1.5 times the fixed charges, including interest on the bonds then applied for." Commissioner Miller also dissented in part.

### Fuel Costs Decrease

With gross ton mileage for August, 1938, reduced 14.6 per cent below the August, 1937, values; passenger train car mileage reduced about 7.4 per cent; and with decreases in unit fuel performance in both passenger and freight services, the total cost of fuel and power consumed by the Class I railways (excluding terminal and switching companies) was \$18,725,000. This was 14.5 per cent lower than in August, 1937, because of the slight decrease in the price of fuel per equated net ton

Fuel Performances and Costs in Freight and Passenger Road Service, Class I Railways

	July 1938	August 1938	1937	Per cent Change August, 1938
Coal per 1,000 gross ton-miles, lb. .... (Including locomotive and tender)	104.0	105.0	106.0	-0.94
Fuel cost per 1,000 gross ton-miles, cents .... (Including locomotive and tender)	14.64	14.67	14.84	-1.14
Coal per passenger train car-miles, lb. ....	14.0	13.9	14.0	-0.70
Fuel cost per passenger train car-miles, cents ....	1.96	1.94	1.96	-1.02
Average cost of fuel per equated net ton .... (Coal equivalent)	\$2.80	\$2.79	\$2.80	-0.04

(coal equivalent). Figures shown in the accompanying table were arranged for purposes of comparison by the Railway Fuel and Traveling Engineers' Association.

### Post Office Will Require One Car Before Mail Car

The Railway Mail Service has drafted a new postal regulation which requires that henceforth "when practicable, one or more cars shall be operated between the engine and the railway postoffice car." Superintendent Stephen A. Cisler of the Railway Mail Service, explained that the purpose of the new regulation was to insure smoother riding. Sudden jerks, he said, sometimes make clerks sorting letters throw them into the wrong receptacle.

### Club Meetings

The Southern and Southwestern Railway Club will hold its next meeting on November 17, at 10:00 a. m., at the Ansley Hotel, Atlanta, Ga. J. E. Teal, transportation engineer, Chesapeake & Ohio, Richmond, Va., will present a paper entitled "The Effect of Locomotive Tonnage Ratings on the

Economics of Railway Operations," and the C. & O. will show its motion picture "The Coal Bin of America."

The Toronto (Ont.) Railway Club will hold its next meeting on October 24 at the Royal York hotel. Robert S. Henry, assistant to the president, A. A. R., will address the meeting on the subject "The Business of Railroadings."

### New York Railroad Club Program Announced

At the October 28 meeting of the New York Railroad Club, previously announced, the program will deal with the lumber industry and will be under the supervision of the Weyerhaeuser Sales Company, whose motion picture entitled "Trees and Men" will be presented. The discussion will include consideration of the lumber industry, its modernization, its relation to the railroads and the status of timber as a crop.

### Persia Opens Caspian-to-Gulf Railway

The Shah of Persia, on August 26, officially opened the new line of the Iranian Government Railways between Teheran, the capital city, and the Persian Gulf, thus marking the completion of the last section of the new 866-mile Trans-Iranian railway route between Bandar Shah on the Caspian Sea and Bandar Shahpur on the Persian Gulf.

The line, which crosses two major mountain chains between its termini, climbing over 7,000 ft. in the Luristan mountains in the south and approximately the same height in the Elburz range to the north, has been under construction for about seven years. Contractors or equipment

companies of nearly all of the major countries of Europe and the United States have had a hand in its building. On the other hand, all of the financing therefor was accomplished within Persia and there will be no foreign creditors to worry about in the future. Feeling ran high through the country over the completion of the undertaking and chief cities were fully decorated for the ceremony.

### N. Y. Port Authority Asks Early Date for Grain Rate Slash

Suspension or delay in the effective date for inaugurating the proposed revised rates on grain shipments from the West (by the Eastern carriers) is opposed in a statement filed with the Interstate Commerce Commission by The Port of New York Authority, which argues mainly that New York is entitled to non-discriminatory rates to be placed in a position to compete for export grain, and that "unless the proposed rates are permitted to take effect promptly, it is obvious that little of this grain will move by way of North Atlantic ports." The statement also referred to the



fact that certain Gulf port interests have filed petitions seeking suspension of the reduced rates and objecting also to the granting of the railroads' application.

### Transportation Association Holds Monthly Meeting

The regular monthly meeting of the Federal Transportation Association, a group of federal employees recently formed to study transportation problems, was held in Washington, D. C., on October 18. W. Y. Blanning, director of the Bureau of Motor Carriers of the Interstate Commerce Commission, addressed the group on the subject of "The Regulation of the Motor Carrier Industry." Also, a paper on land grant rates was read by W. E. Hayghe of the group's research committee.

### Former L. M. S. Mechanical Officer Dies

Sir Henry Fowler, who was chief mechanical engineer of the London, Midland & Scottish (Great Britain) between 1925 and 1930, died on October 16 at the age of 68. After an apprenticeship with the Lancashire & Yorkshire he entered the employ of the Midland in 1900 and became chief mechanical engineer in 1909. After the grouping of this company with the London, Midland & Scottish, Sir Henry became chief mechanical engineer of the L. M. S. in 1925. In 1930 he was appointed assistant to the vice-president for works.

### First Railroad "Fan" Convention Held in Philadelphia

What is believed to be the first national convention of a "lay railroaders" organization, with the exception of strictly model-building clubs, was held by the National Railway Historical Society at the Sylvania Hotel, Philadelphia, Pa., on October 15 and 16. Members arrived from points as far as Canton, Ohio, and Portland, Me., for the proceedings. The regular business and social program of the convention was supplemented by two "field trips" comprising a special train of the Reading over lines in and about Philadelphia not covered by regular runs, and a combined chartered trolley excursion and inspection of the P. R. R.'s engine house at 46th street.

### Would Deny Application to Buy Truck Line

Examiner John S. Higgins of the Bureau of Motor Carriers' Section of Finance has recommended in a proposed report that the Interstate Commerce Commission deny applications of the Black Hills Stages, Inc., for authority to purchase certain operating rights and property of Black Hills Transportation Company and of the Burlington Transportation Company for authority to acquire joint control of Black Hills Stages. The examiner found that "evidence sufficient to sustain the statutory findings" had not been adduced.

Because the Burlington Transportation Company is a wholly-owned subsidiary of the Chicago, Burlington & Quincy, Mr. Higgins reasoned that the proposed transaction, tested by the Barker-case decision, "cannot be deemed other than an extension of the railroad's influence into territory not

served by it, and already served adequately by other railroads." The proposed report had previously cited testimony of the B. T. C. general manager to the effect that operations "under restrictions similar to those imposed in the Barker case would be neither practicable nor profitable."

### Interstate Transit Lines Gets "Grandfather-Clause" Rights

The Interstate Commerce Commission, Division 5, has granted "grandfather-clause" applications of Interstate Transit Lines, affiliate of the Union Pacific, for authority to continue common-carrier bus operations over some 40 routes between points in Minnesota, Iowa, Missouri, South Dakota, Nebraska, Kansas, Wyoming, Colorado, Utah, Arizona and Nevada. The same decision also grants Interstate a common-carrier bus certificate for operations between Kansas City, Mo., and Excelsior Springs, Mo.; and authorizes the operation of special-party or charter services "from points on its routes to any place within the United States."

### Water Rates of Rail Affiliates

Advised by the Southern Pacific and the Ocean Steamship Company that they had no objection to such action, the Interstate Commerce Commission has vacated, without a hearing, certain outstanding orders which authorized those companies to change on one and two days notice the rates on their steamship lines operating between South Atlantic and Gulf of Mexico ports and North Atlantic ports.

As noted in the *Railway Age* of October 8, page 530, the commission recently issued an order calling upon S. P. and Ocean to show cause why these orders permitting short-notice tariffs should not be withdrawn or canceled, in view of changed conditions, including the Merchant Marine Act's provision requiring common carriers by water to file tariffs with the United States Maritime Commission.

### C. I. O. Opposes New York Grade Crossing Amendment

The C. I. O.'s New York state industrial union council has issued a statement urging the defeat of five of nine proposed constitutional amendments to the New York state constitution, including the so-called grade crossing elimination amendment which would relieve the carriers of all but 15 per cent of the cost of grade crossing elimination projects ordered by the state. Opposition to the amendment was based on the argument that its enactment would reward those carriers which had failed to co-operate to date in compliance with grade crossing elimination orders and would be costly to taxpayers of the state.

This attitude the A. F. of L., New York state division, has taken to task in announcing its full support for the grade crossing amendment. In his criticism of the C. I. O. stand, George Meany, A. F. of L. spokesman, pointed out that by approval of the amendment, elimination projects would be shortly initiated providing work for "thousands of citizens" and preventing loss of life and limb to thousands who

use the highways. Quoting Mayor La Guardia of New York city to the effect that "there has been a great deal of demagogic misrepresentation about this amendment," the labor spokesman declared that it is unbelievable that anyone should seek rejection of the amendment while pretending to have in mind the best interests of the working people of the state.

### C. P. Shopmen Agree to Three-Week Shutdown

Union leaders, representing approximately 13,000 shop employees of the Canadian Pacific, and executives of the road have agreed upon a three weeks' complete shut-down of the main shops of the system throughout Canada, to be effective October 24. The agreement, reached after a closed conference between company officers and representatives of the Shop Crafts Federation of the Canadian Pacific, has been made in preference to a reduction of working forces at the present time. Shop employees agreed that a general shutdown and the resultant spread in loss of wage earnings would be more equitable than partial lay-offs.

C. P. office workers are already affected by a reduction plan whereby each employee will take one day off each fortnight for the balance of the year, which amounts to an approximately 8½ per cent reduction in pay.

### September Employment 2.41 Per Cent Above August

Railroad employment increased 2.41 per cent—from 939,268 to 961,868—during the one-month period from mid-August, to mid-September, although it was down 15.1 per cent from September, 1937, according to the Interstate Commerce Commission's compilation, based on preliminary reports. Increases over August were reported for all groups except executives, officials, and staff assistants (off 0.18 per cent), and transportation, including yardmasters, switchtenders, and hostlers, (off 1.55 per cent). Maintenance of way and structures forces were up 3.68 per cent from the previous month but down 16.16 per cent under September, 1937; maintenance of equipment and stores, up 3.43 per cent from August, down 21.14 per cent from September, 1937; train and engine service, up 2.67 per cent and down 14.71 per cent, respectively.

The index number, based on the 1923-1925 average as 100 and corrected for seasonal variation, stood at 52.8 in September, as compared with August's 51.3, and 62.2 in September, 1937.

### Labor Bureau Bulletin Probes Strike History

Strikes of railroad employees in the United States between 1880 and 1936 are summarized in bulletin No. 651, dealing with all strikes in the country between those dates, recently issued by the U. S. Department of Labor, Bureau of Labor Statistics. While railroad strikes alone are not afforded detailed treatment, text sections outlining the history of strikes make reference to more important instances in railroad strike history, such as the great

eastern railroad strike of 1877, the activity of the Knights of Labor in 1885 and 1886, the great Pullman strike of 1894, and the shopmen's strikes of 1911 and 1922.

A table summarizing statistical details of strikes for the 25-year period 1881 to 1905, inclusive, by industries, reveals that 509 strikes and lockouts occurred in railroad transportation during this period, in which a total of 218,393 workers were involved. In a table covering strikes beginning in the years 1927 to 1936, inclusive, it is brought out that steam railroads were troubled by no strikes in the years 1931-1934 inclusive, had but one strike in 1928, 1930 and 1935, two strikes in 1936 and three strikes in 1929. It is further reported in 1928, 1930 and 1936 strikes were concerned with union organization; that the three strikes of 1929 and that of 1935 were based on wages and hours disputes, while the strike of 1936 is said to be "miscellaneous" in character.

### September Operating Revenues 11.2 Per Cent Under 1937

Preliminary reports from 87 Class I railroads, representing 79.9 per cent of total operating revenues, made public by the Association of American Railroads, show that those roads, in September, 1938, had estimated operating revenues amounting to \$257,805,888 compared with \$290,179,368 in the same month of 1937 and \$373,360,033 in the same month of 1930. Operating revenues of those roads in September, 1938 were 11.2 per cent below those for September, 1937, and 30.9 per cent below September, 1930.

Freight revenues of the 87 Class I roads in September, 1938, amounted to \$207,501,207 compared with \$233,207,814 in September, 1937, and \$292,272,331 in September, 1930. Freight revenues in September, 1938, were 11.0 per cent below the same month of 1937, and 29.0 per cent below the same month in 1930. Passenger revenues in September, 1938, according to the preliminary reports, totaled \$27,463,683 compared with \$31,997,118 in September, 1937,

and \$48,597,003 in September, 1930. For the month of September, 1938, they were 14.2 per cent below the same month in 1937, and 43.5 per cent below the same month in 1930.

### Railroad "Y" Members to Meet November 9-11

Discussions of problems facing the transportation industry, and particularly those concerned with human relationships, are scheduled in the program of the 21st triennial conference of the Railroad Young Men's Christian Associations of North America, to be held on November 9 to 11, inclusive, at the Royal York hotel, Toronto, Ont. The chief speakers to be presented during the conference are Sir Edward Beatty, chairman and president of the Canadian Pacific; C. D. Howe, minister of transport, Dominion of Canada; George M. Harrison, chairman of the Railway Labor Executives Association, and Miss Avis Lubdell, special representative, Union Pacific.

Topics under the head of transportation to be discussed include considerations of labor-management relations; the place of competition in the industry and employee loyalty. The membership will also pay attention to such topics of general interest as "Responsible Citizenship" and "The New Patriotism." It is expected that some 600 representatives of railroad labor, management and local railroad Y. M. C. A.'s throughout Canada and United States will be present at the conference.

### Examiner Finds Virginia Tidewater Coal Rates Reasonable

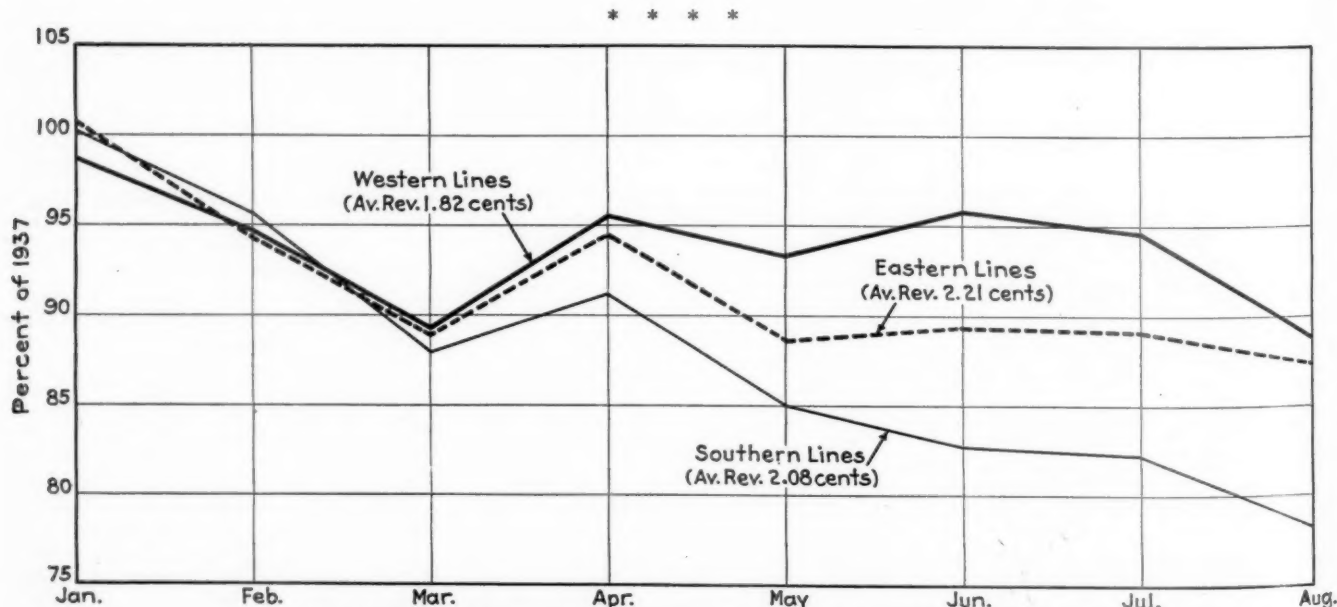
Rates on bituminous coal, in carloads, from mines in southern West Virginia, Virginia, and eastern Kentucky to Hampton Roads, Va., for transshipment by vessel to destinations outside the Virginia capes, and dumping charges at Hampton Roads are not unreasonable in the opinion of Interstate Commerce Commission Examiner, R. N. Trezise, and he would have the commission so find.

Examiner Trezise made his proposed finding in a proposed report in the case of the Property Owners' Committee and others versus the Chesapeake & Ohio and others in which coal operators in southern West Virginia, Virginia and eastern Kentucky alleged that rates on bituminous coal, in carloads, over the lines of the C. & O., the Norfolk & Western and the Virginian, from the districts named to Hampton Roads for transshipment by vessel to destinations outside the Virginia Capes, and the charge made by the carriers of five cents per long ton for dumping coal from the cars into vessels at Hampton Roads, were and are unjust and unreasonable and in violation of section 1 of the Interstate Commerce Act. The complainants asked the commission to prescribe reasonable rates and charges for the future.

### Belsterling Links Railroad and Steel Industries

Charles S. Belsterling, vice-president in charge of traffic, United States Steel Corporation, delivered a talk entitled "The Iron Industry and Transportation" before the Birmingham (Ala.) Traffic and Transportation Club, on October 11, in which he praised the concurrent rise of the iron industry and railroad transportation in key steel and iron producing points. The speaker devoted most of his speech to a review of the history of the steel industry in the Birmingham district and pointed to the development of the railroad systems serving that point from numerous small pioneer predecessors, with emphasis on the fact that small detached local roads built to serve local plants later became the nucleus of national systems.

Reviewing the continuous tightening of regulation of the carriers, Mr. Belsterling pointed out that each class I railroad in the country is now required during the course of one year to make some 888 reports to national and state regulatory commissions, including 10 daily, 6 weekly, 294 monthly, 73 quarterly and 402 annually, and, as occasion may require, 16 general



How Passenger Revenues Have Declined in 1938 in the Three Territories  
(Showing Also Average Non-Commutation Revenue Per Passenger-Mile for First Seven Months in Each Territory)



reports. He further cited the fact that the valuation provisions of the Interstate Commerce Act up to December 31, 1937, have cost the carriers alone some \$156,027,597; in addition the government has been assessed about \$49,909,755 for the purpose.

### Freight Car Loading

The weekly figure for freight car loading reached the 700,000 mark for the first time this year when totals for the week ended October 8 showed 702,964 cars, an increase of 5,026 cars or 0.7 of one per cent above the preceding week, but a decrease of 109,294 cars or 13.5 per cent below the corresponding week in 1937 and a decrease of 268,291 cars or 27.6 per cent below the same week in 1930. All commodity classifications except forest products, ore and coke showed increases over the preceding week while all commodity classifications except grain showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

#### Revenue Freight Car Loadings

For Week Ended Saturday, October 8

Districts	1938	1937	1936
Eastern .....	143,977	160,960	162,747
Allegheny .....	124,788	154,612	160,723
Poconahontas .....	51,575	55,473	58,089
Southern .....	106,160	111,358	111,188
Northwestern .....	102,108	132,071	138,541
Central Western .....	118,182	133,999	126,146
Southwestern .....	56,174	63,785	63,136
<b>Total Western Districts .....</b>	<b>276,464</b>	<b>329,855</b>	<b>327,823</b>
<b>Total All Roads .....</b>	<b>702,964</b>	<b>812,258</b>	<b>820,570</b>
<b>Commodities</b>			
Grain and Grain Products .....	42,501	35,456	30,054
Live Stock .....	19,556	20,531	21,911
Coal .....	134,537	157,527	155,730
Coke .....	6,142	9,250	10,318
Forest Products .....	31,799	33,836	34,813
Ore .....	28,536	58,495	60,752
Merchandise l.c.l. .....	161,573	173,516	173,097
Miscellaneous .....	278,320	323,647	333,895
<b>October 8 .....</b>	<b>702,964</b>	<b>812,258</b>	<b>820,570</b>
<b>October 1 .....</b>	<b>697,938</b>	<b>843,861</b>	<b>819,597</b>
<b>September 24 .....</b>	<b>675,553</b>	<b>836,885</b>	<b>807,243</b>
<b>September 17 .....</b>	<b>660,142</b>	<b>822,795</b>	<b>789,857</b>
<b>September 10 .....</b>	<b>568,887</b>	<b>708,202</b>	<b>700,147</b>
<b>Cumulative Total, 40 Weeks .....</b>	<b>22,848,763</b>	<b>29,958,208</b>	<b>27,279,874</b>

In Canada.—Carloadings for the week ended October 8 totaled 60,627, as against 61,925 for the previous week and 61,388 a year ago, according to the statement of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
<b>Total for Canada:</b>		
Oct. 8, 1938 .....	60,627	23,845
Oct. 1, 1938 .....	61,925	25,605
Sept. 24, 1938 .....	60,812	18,870
Oct. 9, 1937 .....	61,388	26,422
<b>Cumulative Totals for Canada:</b>		
Oct. 8, 1938 .....	1,845,211	814,471
Oct. 9, 1937 .....	2,010,775	1,059,833
Oct. 3, 1936 .....	1,849,300	916,562

### Illinois Central Must Keep Train-Stop System

The Interstate Commerce Commission has denied the application of the Illinois Central for authority to discontinue the use of automatic train-stop and two-indication cab signal devices, and to substitute in lieu thereof three-indication color-light automatic block signals on the wayside on its 122-mile line between Champaign, Ill., and Branch Junction. The majority report by Commissioner

McManamy noted that the case was the "first proceeding of importance" since the passage in 1937 of amendments to the Interstate Commerce Act's section 26 (the so-called Signal Inspection Act, one of railroad labor's "make-work" measures). In this connection, the report goes on, "clearly it was the intent of Congress to provide greater safety, so far as it relates to railroad signals, than existed previous to the amendment, and nothing in that section excuses a carrier from compliance therewith because of financial considerations." The I. C. estimated that the proposed change would bring it "annual savings of \$25,000 in the maintenance of automatic train-stop equipment on locomotives and wayside . . . and an additional saving of \$41,300 would be realized from a more flexible use of motive power by the extension of locomotive runs." The railroad's contentions were set out in detail in the review of its application which appeared in the *Railway Age* of November 13, 1937, page 699.

Commissioner Mahaffie, concurring in part, noted his agreement with the majority's conclusion, but his inability to agree "that section 26 of the Act may not properly be considered with other sections of the Act relating to the public interest." Commissioners Lee and Caskie did not participate in the disposition of the case.

### I. C. C. Decision Bars National Trailways from New Orleans

The Interstate Commerce Commission, in a 6 to 5 decision, has affirmed Division 5's decision denying the application of the Missouri Pacific Transportation Company, affiliate of the Missouri Pacific, for authority to continue its bus operation between Natchez, Mass., and New Orleans, La. As pointed out in the *Railway Age* of August 28, 1937, this is a proceeding which involved the competitive relationships of National Trailways and the Greyhound Lines, the Missouri Pacific being associated with the former while its competitor on the route—Teche Lines, Inc.—is a Greyhound affiliate.

Teche claims "grandfather-clause" rights on the route, while the railroad affiliate established its line on October 15, 1935, in order to give National Trailways access to New Orleans. The majority report by Commissioner Eastman summarizes the evidence as having failed to show "that there is a public demand or need for passenger transportation service between Natchez and New Orleans which cannot be satisfied by existing and established agencies without the continuance of service by applicant. Nor has it been shown that there is sufficient demand for such service between these points to permit a profitable operation by both applicant and protestant, Teche Greyhound."

Commissioner Lee's dissent, "for the reasons stated in my dissenting expression in the prior report of Division 5," was joined in by Chairman Splawn and Commissioners Aitchison, Porter and Mahaffie. Mr. Lee's dissent to Division

5's report expressed the view that "it would be in the public interest to have competitive operation by these two strong systems between New Orleans and the larger territory to the east, north and west." The denial of the M. P. T. application, he added, results in shutting National Trailways out of New Orleans, and "in preserving to the Greyhound Lines an apparent, if not an actual, monopoly in bus transportation in the lower valley of the Mississippi."

### July Accident Statistics

The Interstate Commerce Commission's completed statistics of steam railway accidents for July 1938 now in preparation for the printer, will show:

Item	Month of July		7 months ended with July	
	1938	1937	1938	1937
Number of train accidents .....	456	657	3,155	5,201
Number of casualties in train, train-service and non-train accidents:				
Trespassers:				
Killed .....	273	302	1,300	1,495
Injured .....	274	341	1,423	1,563
Passengers on trains:				
(a) In train accidents:				
Killed .....	...	...	44	...
Injured .....	47	66	287	312
(b) In train-service accident:				
Killed .....	1	2	11	6
Injured .....	141	210	1,066	1,086
Travelers not on trains:				
Killed .....	3	...	5	8
Injured .....	49	51	424	444
Employees on duty:				
Killed .....	34	47	268	401
Injured .....	1,354	2,171	8,948	14,226
All other nontrespassers†:				
Killed .....	115	160	859	1,102
Injured .....	398	476	3,125	3,905
<b>Total—All classes of persons:</b>				
Killed .....	426	511	2,487	3,012
Injured .....	2,263	3,315	15,273	21,536

\* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than \$150 to railway property.

† Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Number of accidents .	215	265	1,866	2,433
Persons				
Killed .....	105	140	801	989
Injured .....	226	280	2,188	2,776

### Reports of Joint Boards

Several proposed reports of joint boards in proceedings involving applications of railway affiliates have recently been made public by the Interstate Commerce Commission.

Joint Board No. 52, composed of Ernest E. Blincoe, of Kansas, has recommended the granting of a common-carrier bus certificate to the Missouri Pacific Transportation Company, affiliate of the Missouri Pacific, for operations between Kansas City, Kans., to a point near Victory Junction, Kans. Joint Board No. 215, composed of John H. Page of Arkansas, would grant the same company a certificate for bus operations between Batesville, Ark., and Melbourne.

Joint Board No. 52, composed of John F. Jones of Kansas, would give the Chicago, Rock Island & Pacific a common-carrier trucking certificate over a route between Hutchinson, Kans., and Herington;

while Joint Board No. 36, composed of Mr. Jones and John C. Highberger of Missouri, would give the same road a similar certificate for handling all commodities except livestock on a route between Herington and St. Joseph, Mo. Joint Board No. 137, composed of H. B. Dunlap of Iowa and Mr. Highberger, recommends another common-carrier trucking certificate for the Rock Island between Eldon, Iowa, and Trenton, Mo.

Joint Board No. 164, composed of Clayton W. Coleman of Louisiana, has recommended granting to the Texas & New Orleans a certificate for carrying mail and express between Lafayette, La., and Morgan City, "serving all intermediate points at which the applicant maintains railway stations."

### British Journals Feature L. M. S. Centennial

To mark the centennial of the opening of the first British main line railway—the London & Birmingham, predecessor company of the London Midland & Scottish—British newspapers and journals have for some weeks published numerous articles on the historic line, its London terminus, Euston station, and later developments in the railway field as pushed by the L. M. S. In addition to space in regular issues, the "Times," one of the country's most influential newspapers, and the "Railway Gazette," weekly journal of the railroad industry, have published large special issues devoted entirely to the centennial.

The "Times" edition of 28 pages carries a detailed history of the London & Birmingham line, full of fresh anecdotal material, followed by a review of the L. M. S. by Lord Stamp, chairman of the road. These introductory pieces are followed by general articles by special correspondents on the story of Euston station, past officers of the road, historic locomotives, modern railroad travel and its "amenities," financial history of the L. M. S., and modern services and facilities of the road. All articles are well-illustrated, and the front cover carries a 16 in. by 19 in. photograph of the "Coronation Scot," the L. M. S. premier train scheduled to visit the United States in 1939.

The special supplement of the "Railway Gazette" devotes 84 full pages of text to centennial matters in an issue much to be admired for its excellent complement of illustrations, which include numbers of paintings, etchings and sketches dating back to the early days of the London & Birmingham. In this connection the numer-

ous selections from John C. Bourne's "Drawings of the London and Birmingham Railway" (1839) are especially to be noted. The chief articles include a foreword by Lord Stamp; a detailed account of the building of the L. & B., its completion in September, 1838, and its later operating agreements with the Grand Junction and the earlier Liverpool & Manchester; a history of Euston station; a development of the London & North Western (L. M. S. predecessor company), early train services, and complete accounts of former executives of the road. Following articles cover special departments of railroading as they applied to the L. & B. and to the present-day L. M. S.

The London Midland & Scottish, as its part in the centenary celebration, held a public exhibition at Euston station on September 19 to September 25, inclusive comprising both an outdoor and indoor section. The former was placed on platforms six and seven of the station and constituted a pageant of progress of the rolling stock of the road and its constituent companies for the last 100 years. The indoor section, located in the stockholders' meeting room, was a display of early stocks, documents, tickets, etc. It is especially significant that visitors to the exhibition passed through the historic doric arch built as a gateway to the L. & B. at its opening and which today forms the facade of Euston station.

### Swiss Road Orders 12,000-Hp. Electric Locomotive

The Swiss Federal Railways recently ordered from the Ateliers de Construction Oerlikon and the Swiss Locomotive Works at Winterthur, Switzerland, a new, very powerful electric locomotive for the Gothard line. The wheel arrangement and the general construction of the new locomotive are similar to one placed in service in 1931. Two pantographs collect the 15,000-volt, single-phase, 16⅔-cycle current from the overhead line, from where it passes through an oil circuit breaker to the two locomotive transformers. Control is accomplished on the primary side of the locomotive transformer, only comparatively small currents having to be dealt with; regulation in the low voltage motor circuit would involve control equipment which would have to be designed for current capacities of many thousand amperes.

Compared with the locomotive furnished in 1931, the output of the new locomotive has been greatly increased and amounts to approximately 12,000 hp. an hour.

With a total weight of 244 tons and a weight on drivers of approximately 160 tons, the locomotive will be able to haul express trains of 600 tons over grades of 2.6 per cent at a speed of 40 m.p.h. or freight trains of 750 tons with a speed of approximately 31 m.p.h. The one-hour tractive effort at 47 m.p.h. is 97,000 lb., and the maximum starting tractive force approximately 110,000 lb. To obtain the maximum tractive force, it is necessary to increase the weight on all driving axles from 160 to approximately 172 tons. This is accomplished with a simple compressed air device.

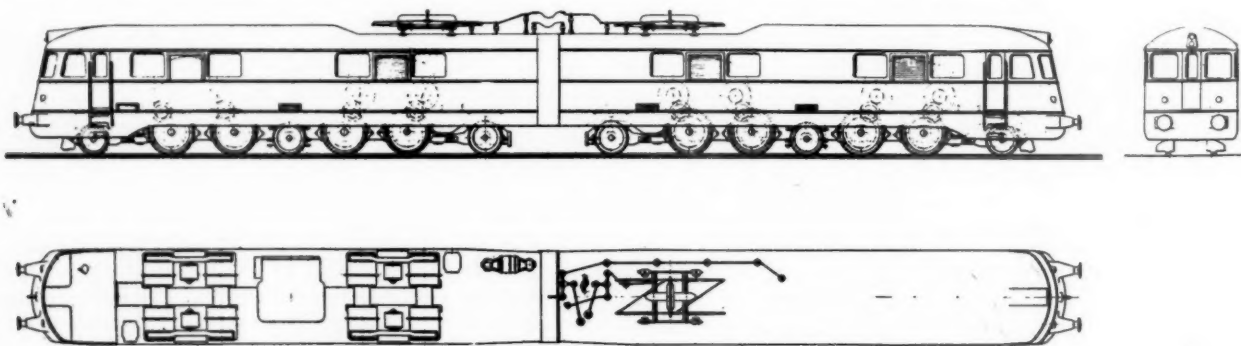
The locomotive will be equipped with the universal individual axle drive developed by the Swiss Locomotive Works, with two traction motors driving one axle. There are eight such motor groups.

### Frisco Stock Deal Decision Given to Defendants

Railroad merger and so-called "community of interest" plans that have gone awry are reviewed in a tolerant light in a decision concerning the purchase of Chicago, Rock Island & Pacific stock by the St. Louis-San Francisco, handed down on October 14 by Justice Louis A. Valente of the New York State Supreme Court, after a costly trial held in session for 24 days. By this judgment, the plaintiffs, J. G. Lonsdale and J. M. Kurn, co-trustees of the St. Louis-San Francisco, are denied rescission of a transaction involving the purchase of 183,333 shares of Rock Island stock by the Frisco in 1926 for \$10,506,090.

The decision further exonerates the defendants—Speyer & Co., and J. & W. Seligman & Co., New York banking houses, which participated in the sale, and Edward M. Brown, chairman of the Frisco board during the transaction—from charges of dominating the road's board and of using their power to bring about the transaction in suit "not for the benefit of Frisco, but for their own personal advantage and benefit" and of concealing material facts. Finally, the judgment denies the plaintiffs' prayer for an accounting by the defendants for all profits and gains accruing to them from the transaction.

Briefly, the case concerns the purchase of 183,333 shares of Rock Island stock by the Frisco in January, 1926, through arrangements concluded individually by Mr. Brown with Speyer & Co., whereby the banking firm purchased for its own account, in the open market, 275,000 shares of Rock Island stock and offered the Frisco board 183,333 shares at the average cost of



This New Two-Part Swiss Electric Locomotive Will Have Partially Streamlined Cabs



the entire lot, or a total of a little more than \$10,000,000, together with an option on an additional 45,833 shares; J. & W. Seligman & Co. had a 25 per cent interest in the transaction. On January 19, 1926, the Frisco executive committee, which included Mr. Kurn, one of the plaintiffs, unanimously decided to purchase the 183,333 shares; the option for additional shares was not exercised. In payment for the shares, the road decided to make partial reimbursement by the sale to the Speyer and Seligman firms of about 50,000 shares of Frisco common stock at not less than \$92.50 per share; Mr. Brown actually sold them for \$95.25 per share. It is on the basis of the alleged invalidity of this transaction that the plaintiffs sought to rescind the sale.

### Railroad Engineers Talk to Automotive Group

The experiences of the Union Pacific and the Atchison, Topeka & Santa Fe in the use of Diesel-electric power for passenger service and the development of light-weight passenger cars by American builders were described in talks by three representatives of the carriers and equipment companies before the Society of Automotive Engineers, Metropolitan section, in the New Yorker hotel, New York, on October 13. Otto Jabelmann, assistant to the president, in charge of research, Union Pacific, in a talk entitled, "Pioneering the Diesel-Electric Streamliners," traced in full the development of the eight streamliners operated by his road, commenting on their operating features and reviewing the steps taken in the improvement of successive trains. Relative to power requirements, he stated that, in spite of the higher operating cost of the super-speed streamliner service, "it is here to stay"; and further, that it is his belief that, unless some other form of motive power is invented or developed, there is no other way at present to operate this service practically except with Diesel engines. On the other hand, he said, "You of the automotive industry have yet a formidable competitor in the reciprocating steam locomotive."

E. E. Chapman, mechanical assistant, A. T. & S. F., in discussing the operation of Diesel and steam locomotives in expedited passenger service, enumerated the experiences of his road in the use of each type of power, weighing carefully the advantages of each. In conclusion, he expressed the opinion that while Diesel-electrics have been able to make as high as 27,000 miles per month on intermediate speed passenger runs in prairie territory, it is now necessary to develop more power per unit than is the case at present in order to use Diesel power on such runs with heavy loads in mountain service, and this must be performed without increasing the present weight of the locomotives.

The history of light-weight cars in steam railroad service was discussed by W. H. Mussey, engineer of research, Pullman-Standard Car Manufacturing Company. The speaker pointed out that there are now in operation, or on order, a total of 1,239 light-weight passenger cars for service on Class I roads, including 72 light-weight trains composed of 684 cars. In discussing

the various new materials developed for car construction, Mr. Mussey pointed out that considerably more than 900 main-line cars and numerous traction cars have been built of high tensile, low-alloy steel.

### DeGroot Is New Bureau of Service Chief

Edward H. DeGroot, Jr., whose appointment as Director of the Interstate Commerce Commission's Bureau of Service was announced in last week's *Railway Age*, first entered railroad service on the Chicago, Burlington & Quincy as a student of telegraphy and station helper at Downers Grove, Ill. He was next employed as junior clerk in the general freight office of the Burlington at Chicago, going from there to the Chicago & Eastern Illinois as clerk—later tariff clerk—in its general freight department.

Returning to the Burlington at the age of 18, the next 10 years were spent in yard service and train service, following which he again entered the employ of the C. & E. I., serving as chief train dispatcher, trainmaster, roadmaster, division superintendent and superintendent of transportation, prior to his appointment by the Interstate Commerce Commission in 1917



Edward H. DeGroot, Jr.

as chief of its newly-created Bureau of Car Service.

Federal control coming shortly thereafter, he was transferred to the Railroad Administration as assistant manager, Car Service Section. He was appointed assistant director, Division of Operation of the Railroad Administration, February 1, 1919, and held this position until the end of federal control, when he became assistant director of the Bureau of Service of the commission. From July, 1924, through October, 1928, Mr. DeGroot was director of the commission's Bureau of Signals and Train Control Devices.

Upon the discontinuance of this Bureau, he returned to the Bureau of Service as assistant director, remaining in this position until his recent appointment as director of that bureau.

During his railroad service Mr. DeGroot served as chairman of the St. Louis Interchange Committee, was president of the American Association of Railroad Superintendents, and the General Superintendent's Association of Chicago; besides being active in the Association of Transportation and Car Accounting Officers, and in various other similar representative capacities.

Homer C. King, whose appointment as assistant director of the Bureau of Service was also announced last week, came to the commission in 1922 as locomotive inspector after several years' service on the Atchison, Topeka & Santa Fe and in the United States Army as locomotive fireman and engineer. He was admitted to the Bar of the State of Georgia in 1926, and transferred to the Bureau of Service as service agent in 1931. He was made special examiner in 1935, in which capacity he has continued until his appointment last week.

### Car Men Mark 50th Anniversary

The Brotherhood Railway Carmen of America this month is commemorating the 50th anniversary of the organization of its predecessor union, the Brotherhood of Railway Car Repairers of North America, at Cedar Rapids, Iowa, October 28, 1888. According to the current issue of the "Railway Carmen's Journal," seven car repairers met in an unused combination baggage and smoking car of the Burlington, Cedar Rapids & Northern (Chicago, Rock Island & Pacific) on that date and formed the first lodge. The present organization was formed in September, 1890, by the union of the original organization and the Carmen's Mutual Aid Association.

Highlights of the preamble and declaration of members of the union which were adopted at the first convention at Topeka, Kansas, included the following aims of the brotherhood; "first, to exalt the character and increase the efficiency of carmen, to bring greater proficiency into their department by a mutual interchange of ideas and a discussion of the best and most economical methods of performing labor; second, to benefit our employers by raising the standard of our craft; third, to establish mutual confidence and create and maintain harmonious relations between employer and employee; fourth, to care for our dear ones in distress or when disabled or removed by accident or unavoidable adversity."

### Mexico Spends \$63,416,700 on Construction of New Lines

In the program of national construction undertaken by the Mexican government, work has been continued on the construction of four new lines in Mexico which were designed to complete and unite the transportation systems of Mexico, as described in the *Railway Age* of August 21, 1937. Under the administration of the Secretariat of Communications the work has progressed rapidly, and up to August 31 a total of \$63,416,700 had been spent.

One of the four lines, the line from Ixcaquixtla, Pue., to the Bay of Chacahua, on the Pacific coast, a narrow gage road 192 miles long, begun in 1935, has been

completed, at a total expense of \$6,337,197.

On the line from Punta Penasco, Son., to Fuentes Brotantes, Son., which will be 107 miles long, the location surveys have now been completed, 71 miles of grading has been completed, and 64 miles of track has been laid, at a total expenditure of \$5,962,998. The Mexican government plans to extend this line from Punta Penasco a distance of 59 miles to Sonoyta, Son., near the Arizona border, which, it is estimated, will cost an additional \$1,100,000.

On the line from Caltzontzin, Michoacan, to Apatzingan, Mich., and Puerto Zihuatanejo, on the Pacific coast, which crosses very rugged territory involving extensive bridge construction, the portion of the line to Apatzingan is nearly complete, 75 of the 78 miles of grading having been completed. The grading on the remainder is 90 per cent complete, but two bridges are still under construction. On the remaining portion of this line, 106 miles to Zihuatanejo, 70 per cent of the location work has been completed. The total expenditures on this line on August 31 had been \$18,339,078.

The largest of the projects, the line which is being built from Puerto Mexico, Vera Cruz, in the southeastern part of the country, to connect with the United Railways of Yucatan at Campeche, Cam., will be 484 miles long, including the 6-mile Lerma branch. Of this 484 miles, 95 per cent of the line had been located on August 31. Of the work on this line, which is being carried on from three points, grading has been started on 36 per cent of its mileage and had been completed on 26 per cent of this mileage. Rail has been laid on 22 per cent of this line, and the total amount so far expended has been \$32,502,142.

### Magazine Editors Center Public Attention Upon Railroads

Public attention was centered upon the vital role of the railroads in American life and in the nation's welfare by the American Railway Magazine Editors Association

when it arranged an unusual program for its annual dinner held at Chicago on October 14. The highlight of this program, over which President Martha Moore, editor of the St. Louis-San Francisco Magazine, presided, was an address by Fred Sargent, president of the Chicago & North Western, broadcast over the National Broadcasting Company network, while an atmosphere of modern streamlined train operation was created by model trains that were operated in front of the dais as the president of each road was introduced. In addition, train hostesses of several lines operating in Chicago acted as ushers, a group of the Rock Island's "Rockettes" danced and the Railway Express Agency glee club sang.

The program was in the form of a timetable with the banquet hall designed as a dining car on a "train" in which the presidents and chief executives of more than 25 major systems were assigned separate "business and private cars." Illuminated drum signs of trains and magazine exhibits were displayed about the hall. An elaborate railroad exhibit, including a model railroad with 1,500 ft. of track, dioramas, displays by the New York and San Francisco worlds fairs, a display by the National Railways of Mexico and an exhibit by the Association of American Railroads filled the lobby and an adjoining room.

While the officers of the editors association arranged the program, it was the co-operation of several railroads which made it so successful. Other organizations co-operating were the Transportation Association of America, the Chicago Railway Business Women's Club, the Railway Business Association, the Junior and Senior Women's Traffic Clubs of Chicago, the Railway Historical Society, railway booster clubs, the Publications Section of the National Safety Council, and the Railway Express Agency.

Mr. Sargent in his address declared that there must be an about-face in the attitude of the public toward the railroads, for they must be freed of restrictive controls; must

be given a free hand to compete for all kinds of traffic; and must be permitted to enter all kinds of transportation. A solution of the transportation problem, he said, would go far toward restoring prosperity on a permanent basis. In the public transportation field the railroads are the largest employers of labor, the largest purchasers of supplies and materials, and the largest taxpayers. He said that the entire plan of regulation will have to be changed, for it was founded on the premise that the railroads had a monopoly of transportation, whereas this conception is now obsolete. Competition is at every hand, on the highways, in the air, and on the waterways.

Officers elected by the association for the ensuing year are: president, T. J. O'Meara, editor of Chesapeake & Ohio Lines magazine; 1st vice-president, W. A. Crawford, editor of the Central of Georgia magazine; 2nd vice-president, F. E. Chabot, asst. editor of the Norfolk & Western magazine; and secretary re-elected, M. W. Jones, assistant editor of the Baltimore & Ohio magazine.

A contest among the member magazines was conducted this year. The winner in the class of black and white covers was the Missouri-Kansas-Texas magazine. The winner in the newspaper style group was the Missouri Pacific magazine. The winner in the mimeographed class was the Richmond, Fredericksburg & Potomac. The winner in the color group was the Norfolk & Western magazine. In conjunction with this contest, it was announced that the Chesapeake & Ohio Lines magazine had been awarded first place in a contest conducted by the Publication Section of the National Safety Council.

The business session of the meeting was devoted to discussions of ways and means to improve employee magazines. Suggestions for improving printing and make-up were made by Maurice Mendle, president of the Mendle Printing Company, St. Louis, Mo., and Carl E. Dunnagan, president of The Inland Press, Inc., Chicago. An analysis of several hundred industrial



More Than 500 Persons Attended the Annual Dinner of the American Railway Magazine Editors Association



and railroad magazines was made by a student of the University of Illinois. A railroad president's opinion of railway employee magazines was commented upon by Holcombe Parkes, associate director of public relations of the Association of American Railroads.

### S. T. Bledsoe Addresses Western Railway Club

At the first annual fall meeting of the Western Railway Club, held on Monday evening, October 17, at the Hotel Sherman, Chicago, approximately 500 members and guests of the club gathered after the dinner to hear a discussion of railway problems and prospects, by Samuel T. Bledsoe, president and chairman of the Executive committee of the Atchison, Topeka & Santa Fe. Mr. Bledsoe said that the transportation situation, from a railroad point of view, is more disturbing than at any time since he entered railroad service in 1895 and that some means must be found for adjusting railroad revenues to expenses if private operation is to continue.

In presenting a concise picture of present conditions, Mr. Bledsoe quoted from a brief table of operating revenues and expenses in which he compared the reasonably prosperous period of six years from 1926 to 1931 with the much less prosperous six years from 1932 to 1937. This table shows the following decreases in the second 6-year period, as compared with the first: Operating revenues, 38.44 per cent; maintenance of way and structures, 48.91 per cent; equipment maintenance, 38.18 per cent; transportation, 36.18 per cent; total operating expenses, 37.87 per cent; labor (salaries and wages) 37.7 per cent; and net railway operating income, 50.5 per cent. These figures were quoted to show the large amount of deferred maintenance which will be an important factor in the amount of money the railways will have to spend for additions and betterments and otherwise improving the property during the next few years.

As a member of the Transportation committee of the United States Chamber of Commerce, Mr. Bledsoe said that this body is well equipped to make a study of railway problems and suggest legislation to increase the revenue of the railroads and also their ability to serve the public. Mr. Bledsoe made the following comments regarding this work:

"The Transportation committee of the Chamber of Commerce of the United States is a long-standing committee of that organization, its members having broad experience in the lines of activity in which they are respectively engaged. There are on this committee shippers representing various commodities in various sections of the country, also, a representative of the railroad industry, two representatives of highway motor transportation, one of waterway transportation and one of air transportation.

"For many years this committee has given active consideration to transportation facilities in relation to the services thereunder and to the compensation received for such services. The committee reaches its conclusions only after investigation and notwithstanding the presumed conflict be-

tween the interests of the various representatives on the committee, final conclusion as to many important matters have been made and in nearly every important case such conclusions have had the approval of all the members of the committee.

"For approximately a year this committee has been giving consideration to the transportation problems of the several transportation agencies and to those of shippers arising out of and relating to transportation by rail, highway, waterway and airway. As a result of this consideration, President George H. Davis was requested to call a transportation conference to consider what, if anything, could be done to promote interest in a sounder financial condition for the transportation services, particularly for the rail transportation companies. This conference was the outgrowth of requests received by the chamber from many sources to consider what additional legislation, if any, was necessary in respect to any one or all of the transportation agencies.

"Upon the call of President Davis, a preliminary conference, was held in Washington, on September 14 and 15, to promote a general understanding and agreement as to remedial legislation needed to further coordination of effort toward securing passage of such legislation.

"An informal canvass of the various associations at this meeting showed that little legislation was desired by them in the immediate future, except for the railroads. The committee was of the view that a program of remedial railroad legislation could be worked out which would be very beneficial to the railroads and not injurious to other classes of transportation, shippers, or financial interests. An Advisory committee was selected to arrange a program for the consideration of future conferences and is now engaged in that work."

Mr. Bledsoe said that the present situation is such as to require the active efforts of every man interested in the welfare of the railroads and he expressed the hope of securing real worth-while nation-wide co-operation through the efforts of the Transportation committee of the United States Chamber of Commerce along the lines mentioned.

### Farm Pay Down, Rail Wages Up

(Continued from page 600)

1916 total wages were 41 per cent of railway gross earnings. In 1937 they were 47½ per cent of gross earnings; in the first seven months of 1938 they were 51½ per cent. The farmer is not, like the average railway employee, receiving two and three-quarters times as much for each hour he works as in 1916; but as a producer and shipper he is helping to pay these greatly increased wages; and if present wages are maintained he will have to pay higher rates if general railroad bankruptcy and government ownership are to be avoided.

"Third, the farmer wants the railroads to afford as much employment both directly, and indirectly by their buying from other industries, as such a great industry

should in order to help afford the farmer a large domestic market for his products. The gross earnings of the railways in 1937 were somewhat larger and this year are slightly smaller than in 1916. Their gross earnings in 1916 were so used that they employed 1,700,000 persons and made purchases from the manufacturing and mining industries that afforded employment to probably 1,000,000 more, a total of about 2,700,000. In 1937 they employed 1,115,000 men and made purchases from the manufacturing and mining industries that afforded employment to probably 750,000 more—a total of about 1,865,000. In the first seven months of 1938 they employed only 955,000 and made purchases from the mining and manufacturing industries that afforded employment to only about 400,000 more—a total of about 1,355,000. Would it be more in the interest of the farmers to have the gross earnings of the railways used as they were in 1916, so as to afford the farmers a market of about 2,700,000 wage-earners; or as they were in 1937, so as to afford the farmers a market of about 1,865,000 wage-earners; or to continue to have them divided as they are being now, so as to afford a market for farm products of only about 1,355,000 wage-earners?

"Fourth, the farmer does not want the railroads operated at a large loss to the taxpayers because, as one of the largest taxpaying classes, the farmers would have to pay in their taxes a large part of these losses. Under government ownership the government could not pay the present wages to the present number of railway employees while charging present freight rates without incurring large operating losses payable from taxes. Under government operation the number of employees undoubtedly would largely increase, as it actually did under government operation during and immediately following the war. This would greatly increase the losses incurred by the government unless it largely advanced freight rates; and if it did not advance rates the farmers would have to pay their share of the increased taxes collected to pay the increased losses.

"Present high railway wage scales are, under present business conditions, a threat to the farmer under all these four headings.

"It has always been my opinion, and I have repeatedly expressed it publicly, that the principal cause of the beginning and long continuance of the present depression has been the wide disparity between the incomes of farm families, on the one hand, and urban families, on the other hand, which developed under the Old Deal and has not been remedied, but increased, under the New Deal. It has been contended that wages in industry and transportation should be advanced, and it is now contended that they should be maintained, to increase and maintain 'purchasing power.' The question immediately arises: 'Whose purchasing power'? If farm prices become low, while wages and consequently prices and rates in industry and transportation are made and kept high, the result must be proportionately to curtail the amount of buying the rural population can do from industry and transportation; and the result of this in turn must be unemployment in industry and transportation."

### Short Line Association Meets in Chicago

The 25th annual meeting of the American Short Line Railroad Association was held in the Hotel Stevens, Chicago on October 17-18, under the chairmanship of President J. M. Hood, with more than 100 members in attendance. As usual, consideration of legislative matters affecting the short lines occupied much of the attention of the meeting, particularly the Through Routes Bill, which seeks to remedy the elimination of several short lines from through routes and rates.

Other matters considered were the Unemployment Compensation Act, the Railway Labor Act, excess public liability insurance, and grade crossing protection and separation. The report of C. A. Miller, general counsel of the association, contained much valuable and informative data regarding the status of transportation legislation, and the district traffic managers reported in detail as to their activities during the year. The general tone of the meeting was one of optimism as to the future of the association and of the short lines themselves.

A feature of the meeting was the silver jubilee dinner held on October 17, at which Otto Beyer, member of the National Mediation Board, was the principal speaker, his subject being "The Art of Mediation." Mr. Beyer traced the history of the Railway Labor Act, and then gave approximate figures as to the activities of his board for the fiscal year ended June 30, 1938. During the preceding 12 months, about 500 cases developed involving railway and air carriers, Mr. Beyer said. These cases concerned the making of new agreements or changing existing agreements bearing upon labor standards. About 400 of these cases were adjusted in direct negotiation and written agreements consummated. Of the remaining 100 cases, 63 were settled by mediation agreements negotiated with the help of the board and 30 cases were withdrawn. In seven cases, the parties concerned were unable to compose their differences in the issues involved. Arbitration was offered by the board but rejected in all but one case, which was duly settled.

Mr. Beyer described mediation at some length. He stated that the board took great pleasure in the fact that all cases were settled without strikes or other interruptions to traffic and that two of the cases involved wage increases amounting to \$135,000,000. The scope of the board's work is indicated by the fact that there are over 4,000 labor agreements in effect on the rail and air carriers in the United States.

On October 18, Murray W. Latimer, chairman of the Railroad Retirement Board, spoke on the working problems of that body, outlining what the board's functions are and what they require in terms of co-operation with other federal agencies and state agencies and with the carriers; giving some of the board's operating results; and discussing the problems of the board and to old age retirement and unemployment insurance.

All salaried officers of the association were re-elected for the coming year, as

were four of the five regional vice-presidents. W. L. White, vice-president of the Yosemite Valley, was elected vice-president of the Pacific region, succeeding C. M. Oddie, while E. W. Martindell, traffic manager, San Luis Valley Southern and T. M. Wheeler, general manager, Salt Lake, Garfield & Western, were elected directors to fill vacancies. The only other change in the board of directors was the election of C. J. Graham, president, Pittsburgh & West Virginia, as a director, succeeding P. A. Trageser, president, Cornwall.

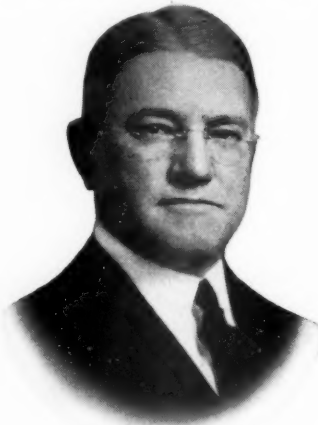
## Supply Trade

John R. Johnston, manager of sales of the Milwaukee district of the Carnegie-Illinois Steel Corporation, has been appointed assistant manager of sales of the Chicago district.

W. G. Dixon and Associates, St. Louis, Mo., have been appointed agents for the sale of welders and electrodes in St. Louis of the Harnischfeger Corporation, Milwaukee, Wis., to succeed C. D. Hicks & Co. The latter organization will, however, continue to handle the sale of cranes, hoists and excavators.

James A. King, vice-president in charge of production of the Morton Manufacturing Company, Chicago, has been relieved of his duties pertaining to factory operations and will hereafter devote his full attention and time to engineering and sales promotion, including his personal supervision of sales to steam and electric railways and the bus industry in the central United States district.

Roy M. Henderson has been elected vice-president of the United Engineers & Constructors, Inc., with headquarters at Chicago. He came to the company as vice-president of Dwight P. Robinson & Company, New York, with a merger in



Roy M. Henderson

1928, and for several years thereafter was president of the Canadian subsidiary corporation, with headquarters in Montreal. For four years he was assigned to foreign business in Mexico, Europe and South America.

## Equipment and Supplies

### R. F. C. Equipment Loans

Chairman Jones of the Reconstruction Finance Corporation revealed at a press conference on October 18 that the Southern, the Boston & Maine and the Seaboard Air Line are now negotiating for equipment loans. Also, Mr. Jones said that a small amount may be advanced to the Kansas City Southern and the Louisiana & Arkansas (now in process of consolidation) for new equipment; while a few other negotiations are "buzzing around a bit."

The Southern's proposal contemplates a loan of \$6,000,000 to finance the purchase of 2,400 freight cars under arrangements similar to those whereby it acquired 5,704 freight cars earlier this year. The B. & M. is negotiating for a loan of \$2,000,000 to replace equipment damaged in the recent hurricane; while the Seaboard is seeking \$725,000 for a Diesel-electric locomotive and seven coaches.

### FREIGHT CARS

THE SOUTHERN RAILWAY contemplates securing a loan of \$6,000,000 from the Reconstruction Finance Corporation to finance the purchase of 2400 freight cars. See *Railway Age* of October 15, page 570.

### LOCOMOTIVES

THE ALASKA RAILROAD has renewed its inquiry for one locomotive of the 4-6-2 type. Inquiry for this equipment was previously reported in the *Railway Age* of January 22, page 213.

THE UNION PACIFIC is making informal inquiries for thirty locomotives. According to the railroad the data requested from manufacturers is in no sense an inquiry for it is being compiled to keep the management informed on prices and new engineering developments.

THE PENNSYLVANIA has authorized the construction of 25 new locomotive tenders of 21,000 gals. capacity at its Altoona shops at a cost of approximately \$550,000. These are for use with its M-1 type through freight locomotives. Construction will be started in the near future and building pushed to completion as rapidly as possible.

### PASSENGER CARS

SEABOARD AIR LINE.—Plans are being made for the purchase of a new streamlined train.

### IRON AND STEEL

THE MOBILE & OHIO has ordered 3,000 tons of rail from the Tennessee Coal Iron & Railroad Company.

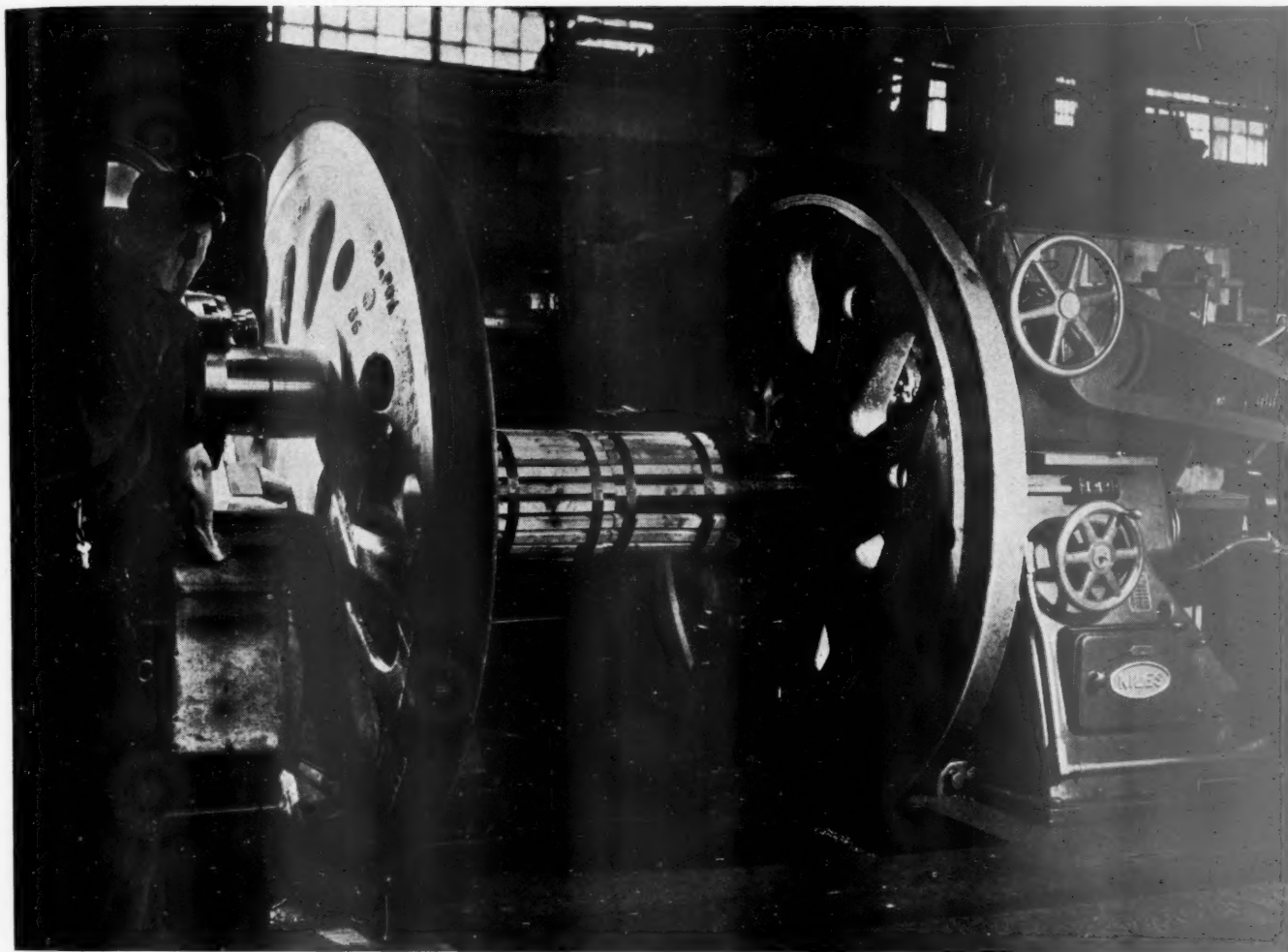
### MOTOR VEHICLES

THE SANTA FE TRAILS OF ILLINOIS, INC. has received delivery of ten 35-passenger buses from the American Car & Foundry Motors Company.

Continued on next left-hand page



## METHODS AND MACHINERY THAT GUARD LIMA QUALITY



## Crank Pins Get a Mirror Finish

In a modern quartering machine the crank pins at Lima are given a final mirror finish by a rolling operation. » » » The surface of the pin is accurately prepared for the rod and this extra care contributes its part in the reputation Lima has earned for building sound, low-maintenance power.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

## Construction

**ATCHISON, TOPEKA & SANTA FE.**—A contract amounting to \$134,220 has been awarded Person & Hollingsworth Company, Los Angeles, Cal., for the construction of the substructure and the placing of riprap for a new bridge over the Santa Ana river. This work is in connection with the relocation of this line in Santa Ana Canyon necessary for the construction of the Prado Dam near Corona, Cal., and involves the construction of six reinforced concrete piers and two reinforced concrete abutments; the driving of approximately 13,456 lineal ft. of structural steel "H" beam bearing piles, and approximately 12,474 lineal ft. of sheet piling; and the placing of 12,500 cu. yd. of compacted embankment and 1,920 tons of derrick sized riprap.

**BOSTON & MAINE.**—Sealed proposals will be received by H. M. Rainie, purchasing agent of this road at 150 Causeway street, Boston, Mass., until 10:00 a. m. (e.s.t.) November 7, 1938, for the furnishing of necessary materials and cable, to progress work on grade crossing elimination at Dover, N. H.

**BROWNSVILLE SWITCHING & TERMINAL.**—Examiner R. R. Molster of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it authorize this company to construct five miles of track in the industrial area of Brownsville, Tex.

**CHICAGO, ROCK ISLAND & PACIFIC.**—A contract has been awarded the American Bridge Co., Pittsburgh, Pa., for the fabrication of approximately 2,450 tons of steel for five 250 ft. deck truss spans for this company's new Cimarron River bridge between Kismet, Kan. and Hayne.

**ERIE.**—Bids were received by this road on October 20 for grade crossing elimination work at Allendale, N. J. The cost of this work is estimated at \$258,000.

**ERIE.**—A contract has been awarded to the Pneumatic Concrete Corporation, Providence, R. I., for repairing the brick lining of this company's double-track tunnel at Otisville, N. Y. In this work the inside layer of brick will be removed, the remainder of the lining will be strengthened by grouting, and a coating of concrete will be applied by the gunite method.

**KANSAS CITY SOUTHERN.**—The Louisiana Highway Commission has awarded a contract amounting to \$79,694 to the Pittsburgh-Des Moines Steel Company, Des Moines, Iowa, for the construction over the tracks of this road, near Oil City, La., of a highway overpass 358 ft. long of steel and concrete construction.

**PORT ISABEL & RIO GRANDE.**—Examiner R. R. Molster of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it authorize this company to construct approximately five miles of line from Esoes, Tex., to Cajon Station, all in the vicinity of Brownsville, Tex.

## Financial

**ATCHISON, TOPEKA & SANTA FE.—Abandonments.**—Authority to abandon a total of 41.4 miles of line is sought in three applications filed with the Interstate Commerce Commission by this road and its affiliates. One, in which the New Mexico Central joined, asks permission to abandon the so-called Estancia district of the Santa Fe, 30.6 miles of line between Kennedy, N. M., and Moriarty; in a second application the Santa Fe seeks authority to abandon its so-called Naptha and De Noya districts, 9.32 miles in Osage County, Okla.; the third, in which the California, Arizona & Santa Fe joined, involves the proposed abandonment of the 1.46-mile Poland branch in Yavapai County, Ariz.

**CENTRAL TERMINAL.—Extension of Maturity of Bonds.**—This company has asked the Interstate Commerce Commission for authority to extend until November 1, 1953, the maturity date of \$1,231,000 of first mortgage Chicago Terminal four per cent 30 year sinking fund gold bonds, due on November 1, 1941, with the same rate of interest.

**ERIE.—Reorganization Plan.**—A group of holders of refunding and improvement mortgage bonds of this road have filed with the Interstate Commerce Commission a plan for reorganization of the company under Section 77. Of particular interest in the plan is the provision that present common and preferred stockholders, among whom the Chesapeake & Ohio holds a controlling interest, would be given warrants to buy common stock in the new company from junior bondholders within a period of five years. By this means, certain classes of bondholders would obtain consideration for substantial portion of their holdings while at the same time the present stockholders have the opportunity of buying in control of the new company within the five year period.

The following underlying issues are to be left undisturbed:

New York and Erie First 4's, 1947...	\$2,482,000
Chicago and Erie First 5's, 1982....	12,000,000
Chicago and Erie Income 5's, 1982...	98,000
Long Dock 3½'s, 1950.....	7,500,000
N. Y., Lake Erie & W. C. & R. R. 5½'s, 1942 .....	755,000
N. Y., Lake Erie & Western Docks & Imp. 5's, 1943 .....	3,396,000
New York, Pennsylvania & Ohio Prior Lien 4½'s, 1950 .....	8,000,000
Miscellaneous obligations .....	2,071,134
Equipment obligations .....	21,263,000

New securities will be distributed to existing creditors for principal and interest to January 1, 1939, as follows: (1) R. F. C., \$20,183,000, will receive \$7,360,000 First Consolidated Mortgage bonds Series B and \$13,677,670 General Mortgage bonds, Series A; (2) Erie Prior Lien bonds, \$35,000,000, 6 per cent, will receive 106 per cent in First Mortgage bonds, Series B; (3) Erie and Jersey First Mortgage bonds, \$6,389,000, 9 per cent, will receive 109 per cent in First Consolidated Mortgage bonds, Series A; (4) Genesee River First Mortgage bonds, \$5,179,000, 9 per cent, will receive 109 per cent in First Consolidated Mortgage bonds, Series A;

(5) Erie General Lien bonds, \$35,485,000, 6 per cent, will receive 25 per cent in First Consolidated Mortgage bonds, Series B, 50 per cent in General Mortgage bonds, Series A, and 31 per cent in preferred stock, Series A; (6) Erie convertible bonds Series A, B and D, \$21,324,700, 5 per cent, will receive 25 per cent in First Consolidated Mortgage bonds, Series B, 25 per cent in General Mortgage bonds, Series A, and 55 per cent in preferred stock Series A; (7) Erie Refunding and Improvement Mortgage bonds, Series of 1927 and 1930, \$100,000,000, 5 per cent, will receive 7½ per cent in First Consolidated Mortgage bonds, Series B, 15 per cent in General Mortgage bonds, Series A, 10 per cent in preferred stock, Series A, and 72½ per cent in common stock; (8) Unsecured claims will receive one share of common stock for each \$40 of claim.

Holders of \$4,616,000 New York and Erie Third Mortgage 4½'s, which matured March 1, 1938, and \$2,135,000 New York and Erie Second 5's, which matured September 1, 1939, will be paid in cash.

By these provisions, total fixed charges, including rentals, will amount to \$7,670,108, which is approximately a 49 per cent reduction from present fixed charges of \$14,238,002. Total contingent charges under the plan would be \$2,328,811 and total fixed and contingent charges and preferred dividends would total \$11,635,365. Total capitalization would be cut by 38 per cent.

The new common stock provided for under the plan, totaling approximately \$77,000,000, will be distributed only to holders of Refunding and Improvement bonds and unsecured claims at a par or stated value of \$36.25 per share, 2,000,000 shares going to the holders of Refunding and Improvement bonds for 72½ per cent of their claims, and the balance going to the holders of unsecured claims, as was indicated above. In addition, approximately 375,000 shares will be issued and reserved for sale, the proceeds to be used to retire the General Mortgage bonds given to the R. F. C. The entire new issue is to be placed in escrow for five years from January 1, 1939, under option to the present Erie stockholders at the stated value of \$36.75 a share plus interest at 4½ per cent.

**KANSAS CITY SOUTHERN.—Merger with Louisiana & Arkansas.**—Harvey C. Couch, chairman of the Kansas City Southern, has issued a statement to stockholders of the road announcing approval by the board of directors of a plan for the unification of the K. C. S. and the Louisiana & Arkansas, which he submits for approval. The plan, dated September 12, will be filed in due course with the Interstate Commerce Commission.

The main features of the plan are as follows: (1) The K. C. S. will convert its common stock, \$100 par value, into no-par stock and increase the authorized number of shares from 300,000 to 750,000; (2) Acquisition of control of the L. & A. by the K. C. S. will be effected by the exchange of 110,000 shares of new K. C. S. common for the outstanding 160,000 shares of L. & A. common; (3) It is further provided that holders of the outstanding

Continued on next left-hand page





Repeated trips to the repair shops caused by pounding driving boxes can be readily eliminated . . . by the application of Franklin Automatic Compensators and Snubbers. » » » With their application, accurate adjustment is constantly maintained, wear and driving box temperature change is automatically compensated for, and the running gear is protected. » » » Provide your locomotives with the lower maintenance, easier riding and increased availability for service that will change them from "Repair Shop Commuters" into profit-producing hauling power.



Repair Parts made by the jigs and fixtures that produced the original are your best guarantee of satisfactory performance.

**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

NEW YORK

CHICAGO

MONTREAL

40,000 shares of L. & A. preferred stock may at any time during a period of three years exchange their stock for new common of the K. C. S. on the basis of 2½ shares of K. C. S. common for each share of present L. & A. preferred. Such preferred stock and 100,000 shares of K. C. S. common are to be deposited in escrow. During the three year period the K. C. S. will have the right to purchase L. & A. preferred stock (par value \$50) at \$37.50 per share, on 60 days' notice, unless such preferred stock is exchanged for K. C. S. common before expiration of that period.

A special meeting of stockholders of the K. C. S. has been called for December 15 to consider the plan. The statement points out that the K. C. S. board of directors reserves the right not to carry out the plan, even though approved by stockholders, if dissenting stockholders threaten to exercise the appraisal right given under Missouri law in connection with the change of common stock into no par shares.

**NEW YORK, NEW HAVEN & HARTFORD.—***Ratification of Trustees of the Boston & Providence.*—The Interstate Commerce Commission, Division 4, has ratified the appointments of Bentley W. Warren and Charles W. Mulcahy as trustees of the Boston & Providence. The commission directed, however, that before Mr. Warren entered upon his duties, that his immediate family divest themselves of the ownership of any securities of the New Haven.

*Reopening of Reorganization Case.*—The Interstate Commerce Commission, Division 4, has reopened this company's reorganization case for the purpose of taking further evidence in support of, or in opposition to any revised plan that may be filed. The commission did not set a date for the hearing.

**WABASH.—***Reorganization.*—Receivers for the Wabash have been authorized by the district court to withdraw for revision the final reorganization filed last February. Revision is necessary, according to the receivers, because of the precipitant fall in revenues which commenced in November and December, 1937, and continued without appreciable abatement through the first eight months of 1938. Essential features of the reorganization plan are sound according to the receivers, but it is not practicable to make it effective as planned retroactive to January 1, or even at a later date without modifications which would make it acceptable in detail as well as in principle. The reorganization plan as filed would reduce the road's capitalization from \$311,599,664 to \$180,546,971, and would cut fixed charges on its debt from \$7,303,359 a year to \$2,987,900.

#### Average Prices of Stocks and Bonds

	Oct. 18	Last week	Last year
Average price of 20 representative railway stocks...	30.91	30.77	31.27
Average price of 20 representative railway bonds...	60.80	60.28	69.07

#### Dividends Declared

Atlantic Coast Line.—5 Per Cent Preferred, \$2.50, semi-annually, payable November 10 to holders of record October 25.  
Elmira & Williamsport.—\$1.14, semi-annually, payable November 1 to holders of record October 20.

## Railway Officers

### EXECUTIVE

**W. S. Campbell**, vice-president and general manager of the Kentucky & Indiana Terminal, with headquarters at Louisville, Ky., has been elected president succeeding **H. R. Kurrie**, trustee of the Chicago, Indianapolis & Louisville, who has been elected vice-president. The Kentucky & Indiana Terminal is owned and controlled by the Baltimore & Ohio, the Monon, and the Southern railroads.

**Lynne L. White**, whose appointment as vice-president of the Erie, with headquarters at Cleveland, was announced in the *Railway Age* of October 15, was born at Kenwood Park, Iowa, on July 2, 1889, and entered railway service on March 10, 1904, as a file clerk in the passenger department of the Chicago, Rock Island & Pacific, at Cedar Rapids, Iowa. After attending business college during 1905 and 1906, he returned to the Rock Island in April of the latter year as a stenographer-clerk in the office of the division passenger agent at Cedar Rapids. From 1907 to 1918, Mr. White served successively as stenographer, clerk, timekeeper, secretary and chief clerk and chief dispatcher at various points on the Rock Island. For a short time he also served as a stenographer and trainmaster's clerk on the St. Louis-



Lynne L. White

San Francisco at Enid, Okla. In February, 1918, he became chief clerk to the general superintendent of the Erie at Chicago, and subsequently served as chief clerk to the general agent at Chicago, chief clerk to the general manager at that point and trainmaster at Hammond, Ind. In June, 1922, Mr. White was promoted to superintendent of the Chicago division, and in April, 1928, he was transferred to the Marion division at Huntington, Ind. He was advanced to assistant general manager of the Western district, with headquarters at Youngstown, Ohio, in June, 1929, and on September 16, 1929, he was promoted to assistant to the president, with headquarters at Cleveland, Ohio. In March, 1933, he was elected also vice-president, with the same headquarters, and

in September, 1936, he left the Erie to accept the presidency of the Pittston Company, Dunmore, Pa., operator of coal mining facilities, with headquarters at Cleveland.

### OPERATING

**J. F. Carder**, trainmaster on the Atchison, Topeka & Santa Fe, at Las Vegas, N. M., has been promoted to superintendent, with headquarters at Argentine, Kan., succeeding **O. W. Page**, **J. B. Noe**, switchman, has been appointed night trainmaster at Argentine, replacing **F. F. Vestal** who has been assigned to other duties.

**C. R. Fetter**, assistant yardmaster on the Atchison, Topeka & Santa Fe at Corwith, Ill., has been promoted to trainmaster of the Kansas City division, with headquarters at Argentine, Kan., succeeding **W. A. Shockley**, who has been assigned to other duties. **A. B. Enderle**, chief dispatcher at Chillicothe, Mo., has been advanced to trainmaster of the Missouri division with headquarters at Marceline, Mo., succeeding **S. Patterson**.

**D. W. Brosnan**, trainmaster on the Southern, with headquarters at Birmingham, Ala., has been promoted to superintendent of the Mobile division, with headquarters at Selma, Ala., succeeding **F. W. Okie**, who has been transferred to Birmingham relieving **J. W. Payne**. Mr. Payne has been transferred to Louisville, Ky., replacing **C. W. Ashby**, who in turn has been transferred to the Danville division at Greensboro, N. C. Mr. Ashby succeeds **F. M. Hair**, who has been transferred to the Knoxville division, with headquarters at Knoxville, Tenn., to succeed **C. E. Burchfield**, deceased.

**F. C. Spencer**, trainmaster on the Great Northern, with headquarters at Minneapolis, Minn., has been promoted to superintendent of terminals, with the same headquarters, succeeding **C. T. Kenney**, who has been advanced to superintendent of the Willmar division, with headquarters at Willmar, Minn., relieving **M. J. Welsh**. Mr. Welsh has been transferred to the Minot division, with headquarters at Minot, N. D., replacing **M. L. Gaetz**, who in turn has been transferred to the Klamath division, with headquarters at Klamath Falls, Ore., succeeding **J. E. Brawley**, who has been assigned to other duties.

Mr. Kenney was born at Minneapolis, Minn., on October 10, 1907, and attended St. Paul Academy, Princeton Preparatory School, and the University of Minnesota. He entered railway service on June 16, 1930, being promoted to assistant trainmaster on the Mesabi division in 1931, and trainmaster on the Spokane division, with headquarters at Wenatchee, Wash., in 1932. On January 1, 1938, he was advanced to superintendent of terminals, with headquarters at Minneapolis, the position he held at the time of his recent promotion.

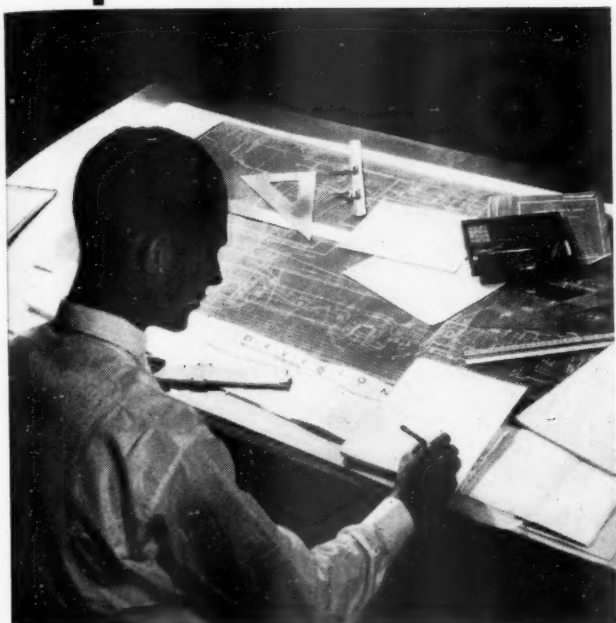
### TRAFFIC

**George D. LeBlanc**, general baggage and mail agent of the Canadian National, has been appointed district passenger agent, with headquarters as before at Moncton,

Continued on next left-hand page



# SUPPOSE EVERY RAILROAD HAD ITS OWN ARCH BRICK DESIGN



Look about and see how standards on many items vary with each railroad. » » » Think of the confusion and expense involved if this also applied to Arch Brick. » » » If a road ran short, it would wait for weeks for its special brick to be made! At joint terminals, the confusion would be unendurable. » » » Years ago, American Arch Company foresaw such a situation and fostered the standardization of Arch tubes and of Arch Brick sizes and designs. » » » Think of the grief this good work saved. » » » In everything having to do with Arch Brick, American Arch Company for a quarter of a century has served the railroads. This service has had and still has a high value.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER  
REFRACTORIES CO.**

*Refractory Specialists*



**AMERICAN ARCH CO.  
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

*Locomotive Combustion  
Specialists*

N. B., succeeding **John H. Corcoran**, who has retired after 47 years of service. **Hugh C. MacFarlane**, assistant to the general passenger agent, Moncton, succeeds **Mr. LeBlanc** as general baggage and mail agent at Moncton.

**Thomas P. Hegler**, general agent, passenger department, on the New York Central, with headquarters at Seattle, Wash., will be transferred, effective November 1, to Denver, Colo., succeeding **Erwin Tears**, who retires on that date, and **Charles J. Barry**, general agent, passenger department, with headquarters at Portland, Ore., will replace **Mr. Hegler** at Seattle.

**J. D. Dawson**, whose appointment as general eastern freight agent of the Seaboard Air Line at New York was reported in the *Railway Age* of October 15, was born in Maryland. After being employed for ten years by the Baltimore Steam Packet Company at Balti-



**J. D. Dawson**

more he entered the service of the Seaboard Air Line in 1910 and served in various capacities in the Baltimore office of the freight traffic department and in the general manager's office at Norfolk, Va. **Mr. Dawson** was later appointed general agent in charge of the Baltimore office, which position he held until November, 1937, when he was appointed assistant general eastern freight agent at New York, the position he held until his recent appointment as general eastern freight agent.

#### ENGINEERING AND SIGNALING

**T. D. Fredrick**, assistant engineer of buildings of the Chicago, Rock Island & Pacific, with headquarters at Chicago, resigned October 16, to enter other business.

**Owen Crawford**, assistant division engineer on the Louisville & Nashville, with headquarters at Mobile, Ala., has been promoted to division engineer of the Nashville terminals, with headquarters at Nashville, Tenn., succeeding **J. S. Hestle**, who has been assigned to other duties.

#### MECHANICAL

**A. C. Schoedinger**, assistant master mechanic on the Louisville & Nashville, with headquarters at Birmingham, Ala., retired on September 1.

#### OBITUARY

**C. E. Burchfield**, superintendent of the Knoxville division of the Southern, with headquarters at Knoxville, Tenn., died on October 5.

**Charles H. Hagerty**, who retired as general agent of the Pennsylvania at Louisville, Ky., in 1933, died at his home in Louisville on October 13, of a heart attack following a long illness.

**William M. Portlock**, who retired in August, 1933, as purchasing agent of the Seaboard Air Line, with headquarters at Norfolk, Va., died on October 15 at Richmond, Va., after a long illness.

**Henry S. Fleming**, consulting engineer, and president of the Louisiana Southern, with headquarters at New York and New Orleans, La., died of a stroke on October 19 at his home in Bronxville, N. Y., after an illness of two weeks. He was 75 years old.

**John William Sasser**, consulting superintendent motive power of the Virginian, with headquarters at Norfolk, Va., died at his home near Raleigh, N. C., on October 16, at the age of 61. He had been superintendent motive power from January 1, 1921, until June 1, 1938, when, due to ill health, he was appointed consulting superintendent motive power. A detailed sketch of **Mr. Sasser's** railroad career was published in the *Railway Age* of June 18.

**George W. Smith**, former superintendent of motive power of the Chicago & Eastern Illinois, and retired superintendent of machinery of the Missouri Pacific, died on October 14 at his home in Evanston, Ill. **Mr. Smith** was born at Rochester, N. Y. on February 29, 1856 and entered railway service in 1870 as an engine-wiper on the Chicago and Iowa (later a part of the Chicago, Burlington and Quincy), at Aurora, Ill. He later became a fireman on the Michigan Central at Joliet, Ill., and a machinist apprentice for the same road at Jackson, Mich. In 1877, he returned to the Chicago and Iowa as a machinist at Aurora, and in 1878, he went with the Atchison, Topeka and Santa Fe as a machinist at Topeka, Kan. He subsequently served the Santa Fe as roundhouse foreman at Argentine, Kan., and master mechanic at Nickerson, Kan.; Topeka, Kan., and Albuquerque, N. M. **Mr. Smith** left the Santa Fe in the summer of 1902 to go with the Illinois Central as master mechanic with headquarters at Waterloo, Iowa, and the following spring he was promoted to assistant superintendent of machinery with headquarters at Chicago. In the spring of 1904, he left the Illinois Central to go with the Chicago and Eastern Illinois as superintendent of motive power, with headquarters at Danville, Ill., and a year later he went with the Missouri Pacific as superintendent of machinery, with headquarters at St. Louis, Mo., the position he held until his retirement in June, 1911.

**Fred P. Blount**, division superintendent on the Missouri-Kansas-Texas, with head-

quarters at Smithville, Tex., whose death on September 23, following burns received in a gasoline explosion at Cross Plains, Tex., was announced in the *Railway Age* of October 15, was born at Colchester, Ill., on August 14, 1886, and entered railway service in January, 1906, as a telegraph operator on the Katy. In August, 1907, he was promoted to train dispatcher, but left in 1910 to go with the Southern Pacific as a dispatcher at Bakersfield, Cal. Several months later he went with the Oregon-Washington Railroad & Navigation Company as a dispatcher at The Dalles, Ore., returning to the Southern Pacific at Bakersfield in December, 1910. In June, 1913, **Mr. Blount** returned to the Katy as a dispatcher at Smithville, Tex., later being transferred to Muskogee, Okla., where he was promoted to chief dispatcher. In September, 1918, he was advanced to trainmaster, with the same headquarters, and subsequently served in that capacity at Sedalia, Mo., Denison, Tex., and again at Muskogee. **Mr. Blount** was promoted to superintendent, with headquarters at Wichita Falls, Tex., in October, 1934, and in May of this year he was transferred to Smithville, Tex.

**T. F. Barton**, superintendent motive power of the Chesapeake & Ohio, with headquarters at Richmond, Va., died on October 14. **Mr. Barton** was born in London, England, on March 21, 1867, and began his railroad career in 1887 with the Grand Trunk. He remained in the employ of that road for six years, serving successively as machinist apprentice, locomotive fireman and journeyman. During the 10 years he served with the Illinois Central he held the positions of machinist, gang foreman, roundhouse foreman, general foreman, master mechanic and superintendent shops. Prior to his connection



**T. F. Barton**

with the Chesapeake & Ohio he was in the employ of the Delaware, Lackawanna & Western for a period of 15 years, serving in the capacity of master mechanic at Kingsland, N. J., when he accepted the position of master mechanic of the C. & O. He was appointed general master mechanic of the Western General division at Huntington, W. Va., on February 1, 1924, which position he held until May, 1930, when he was promoted to superintendent motive power at Richmond.

*Table of Operating Revenues and Expenses appears on next left-hand page*



# Higher Boiler Efficiencies and Fuel Bills

"It has been estimated that railroad coal costs in 1938 will increase by approximately \$19,000,000 over the cost in 1937 as a result of new wage agreements and the National Bituminous Coal Act. Although the increased cost of railway fuel is largely out of control of railroad men, much can be, and has been, done to reduce the total amount of the fuel bill by designing locomotives and their firing equipment to produce higher boiler efficiencies . . ."

—RAILWAY MECHANICAL ENGINEER

August 1938

Boiler efficiencies can be increased from 8%—15% by Elesco feed water heating equipment; some railroads prefer the pump type and others like the injector type. The injector type uses exhaust steam to both preheat the feed water and to inject it into the boiler.

Reduce your fuel bills with Elesco feed water heating equipment.

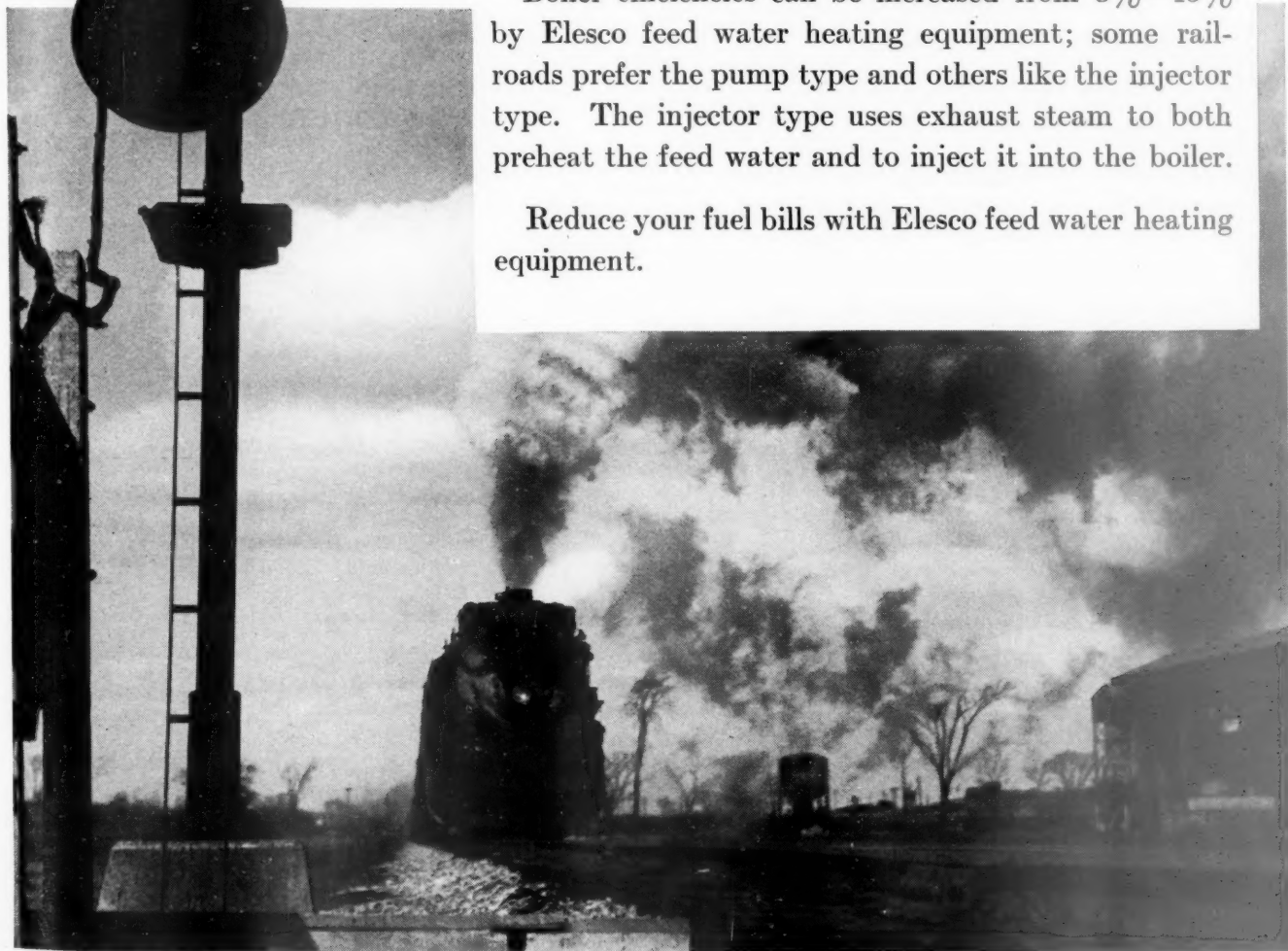


Photo by R. I. Nesmith

## THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK

122 S. Michigan Ave., CHICAGO

Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL



A-1271

Superheaters • Exhaust Steam Injectors • Feed Water Heaters • American Throttles • Pyrometers • Steam Dryers

# Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 137 Monthly Reports of Revenues and Expenses Representing 141 Class I Steam Railways

(Switching and Terminal Companies Not Included)

## FOR THE MONTH OF AUGUST, 1938 AND 1937

Item	United States		Eastern District		Southern District		Western District	
	1938	1937	1938	1937	1938	1937	1938	1937
Miles of road operated at close of month .....	234,479	235,324	57,995	58,160	44,618	44,777	131,866	132,387
<b>Revenues:</b>								
Freight .....	\$253,591,647	\$289,251,306	\$93,289,813	\$116,399,517	\$49,214,534	\$53,151,953	\$111,087,300	\$119,699,836
Passenger .....	36,330,493	41,564,883	19,911,672	22,778,868	3,870,226	4,932,869	12,548,595	13,853,146
Mail .....	7,444,269	7,677,449	2,890,127	2,903,074	1,251,983	1,316,509	3,302,159	3,457,866
Express .....	3,922,484	3,495,841	1,485,479	1,427,353	750,532	578,322	1,686,473	1,490,166
All other operating revenues .....	14,098,480	17,622,477	6,684,477	8,535,840	1,616,949	1,879,652	5,797,054	7,206,985
Railway operating revenues .....	315,387,373	359,611,956	124,261,568	152,044,652	56,704,224	61,859,305	134,421,581	145,707,999
<b>Expenses:</b>								
Maintenance of way and structures .....	39,859,201	47,702,443	13,644,156	18,763,725	6,633,884	7,530,467	19,581,161	21,408,251
Maintenance of equipment .....	55,818,428	70,913,273	22,340,932	30,835,069	11,056,408	13,003,089	22,421,088	27,075,115
Traffic .....	8,331,659	8,701,081	3,021,052	3,232,071	1,567,472	1,618,990	3,743,135	3,850,020
Transportation—Rail line .....	111,824,968	126,236,381	48,100,531	56,383,219	18,132,639	19,761,604	45,591,798	50,091,558
Transportation—Water line .....	401,768	449,159					401,768	449,159
Miscellaneous operations .....	3,262,725	3,768,887	1,360,738	1,570,447	288,614	337,454	1,613,373	1,860,986
General .....	10,480,507	11,094,874	4,069,551	4,412,034	2,001,689	2,118,206	4,409,267	4,564,634
Transportation for investment—Cr. .....	347,261	675,686	61,596	112,749	64,948	95,420	220,717	467,517
Railway operating expenses .....	229,631,995	268,190,412	92,475,364	115,083,816	39,615,758	44,274,390	97,540,873	108,832,206
Net revenue from railway operations .....	85,755,378	91,421,544	31,786,204	36,960,836	17,088,466	17,584,915	36,880,708	36,875,793
Railway tax accruals .....	29,217,752	29,194,480	12,340,393	12,042,864	5,584,900	5,577,726	11,292,459	11,573,890
Railway operating income .....	56,537,626	62,227,064	19,445,811	24,917,972	11,503,566	12,007,189	25,588,249	25,301,903
Equipment rents—Dr. balance .....	8,203,563	8,298,488	3,414,204	3,193,943	*190,772	*262,491	4,980,131	5,367,036
Joint facility rent—Dr. balance .....	2,957,441	3,171,833	1,625,510	1,756,256	313,708	340,304	1,018,223	1,075,273
Net railway operating income .....	45,376,622	50,756,743	14,406,097	19,967,773	11,380,630	11,929,376	19,589,895	18,859,594
Ratio of expenses to revenues (per cent) .....	72.8	74.6	74.4	75.7	69.9	71.6	72.6	74.7
Depreciation included in operating expenses .....	16,919,603	16,451,080	7,408,126	7,302,094	3,289,135	3,139,463	6,222,342	6,009,523
Pay roll taxes .....	8,428,054	6,187,500	3,448,615	2,514,784	1,472,698	682,797	3,506,741	2,989,919
All other taxes .....	20,789,698	23,006,980	8,891,778	9,528,080	4,112,202	4,894,929	7,785,718	8,583,971

## FOR EIGHT MONTHS ENDED WITH AUGUST, 1938 AND 1937

Miles of road operated at close of month† .....	234,722	235,623	58,030	58,281	44,695	44,790	131,997	132,552
<b>Revenues:</b>								
Freight .....	\$1,787,557,540	\$2,287,135,383	\$698,431,158	\$977,858,963	\$363,802,806	\$440,556,047	\$725,323,576	\$868,720,373
Passenger .....	271,872,071	295,313,780	148,242,493	161,530,663	37,137,480	41,907,917	86,492,098	91,875,200
Mail .....	61,491,632	63,340,664	23,498,987	24,180,886	10,723,370	11,144,521	27,269,275	28,015,257
Express .....	28,990,049	38,440,579	10,004,735	15,549,096	6,160,542	8,228,542	12,824,772	14,662,941
All other operating revenues .....	101,525,626	127,340,332	49,710,627	64,180,570	13,138,145	15,760,265	38,676,854	47,399,497
Railway operating revenues .....	2,251,436,918	2,811,570,738	929,888,000	1,243,300,178	430,962,343	517,597,292	890,586,575	1,050,673,268
<b>Expenses:</b>								
Maintenance of way and structures .....	272,436,048	337,461,820	98,027,473	132,344,134	50,947,757	58,371,148	123,460,818	146,746,538
Maintenance of equipment .....	440,574,355	562,260,297	180,802,862	255,717,769	85,825,883	100,666,476	173,945,610	205,876,052
Traffic .....	68,566,503	69,912,869	24,938,613	25,740,777	12,980,211	13,194,611	30,647,679	30,977,481
Transportation—Rail line .....	890,340,132	995,236,397	390,427,880	450,715,024	150,932,987	163,031,514	348,979,265	381,489,859
Transportation—Water line .....	3,173,778	3,760,088					3,173,778	3,760,088
Miscellaneous operations .....	25,120,876	27,241,882	11,073,958	12,028,902	3,122,245	3,461,595	10,924,673	11,751,385
General .....	85,687,172	100,818,816	33,965,960	42,776,309	16,317,606	18,103,254	35,403,606	39,939,253
Transportation for investment—Cr. .....	2,080,308	3,346,336	396,648	499,882	376,743	488,339	1,306,917	2,358,115
Railway operating expenses .....	1,783,818,556	2,093,345,833	738,840,098	918,823,033	319,749,946	356,340,259	725,228,512	818,182,541
Net revenue from railway operations .....	467,618,362	718,224,905	191,047,902	324,477,145	111,212,397	161,257,033	165,358,063	232,490,727
Railway tax accruals .....	226,282,100	219,582,425	96,151,108	99,270,757	44,213,682	47,883,520	85,917,310	72,428,148
Railway operating income .....	241,336,262	498,642,480	94,896,794	225,206,388	66,998,715	113,373,513	79,440,753	160,062,579
Equipment rents—Dr. balance .....	63,069,668	63,144,910	26,135,155	26,709,362	4,662,706	3,505,333	32,271,807	32,930,215
Joint facility rent—Dr. balance .....	23,554,691	24,289,249	12,582,848	13,530,504	2,662,477	2,575,766	8,309,366	8,182,979
Net railway operating income .....	154,711,903	411,208,321	56,178,791	184,966,522	59,673,532	107,292,414	38,859,580	118,949,385
Ratio of expenses to revenues (per cent) .....	79.2	74.5	79.5	73.9	74.2	68.8	81.4	77.9
Depreciation included in operating expenses .....	134,739,435	130,317,462	58,810,449	57,775,323	26,296,514	25,008,424	49,632,472	47,533,715
Pay roll taxes .....	65,189,409	39,785,162	27,264,889	24,361,969	11,663,138	6,678,086	26,261,382	8,745,107
All other taxes .....	161,092,691	179,797,263	68,886,219	74,908,788	32,550,544	41,205,434	59,655,928	63,683,041

\* Deficit or other reverse items.

† Represents an average of the mileage reported at the close of each month within the period.

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.